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ABSTRACT

This book-length study justifies, describes, and gives an initial evaluation of the general education model developed at Los Medanos College (California). The opening chapter presents a detailed philosophic argument in favor of general education as a principle, and in support of the innovative aspects of the Los Medanos model. The argument is for general education as a hub of the total curriculum and as a requirement for the institutional endorsement of a degree. However, Los Medanos has full-blown programs in vocational areas, in transfer fields, and in continuing education as well. The Los Medanos model provides for interdisciplinary generic courses to be offered under the categories of: the behavioral, social, biological, and physical sciences, language arts, and humanistic studies. The 10 chapters of this document address such topics as the local context, generic and discipline courses, intensive student projects, the evaluation design, evaluation of the planning phase, impact of the planning process, problems with the model, and further developments. Enrollment data, demographic data, and program evaluation data are tabulated and included in the body of the document. Also displayed in table form are the Los Medanos governance model, a list of disciplines within each general education area, and schemes of individual courses. (NHM)

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GENERAL EDUCATION: THE LOS MEDANOS COLLEGE MODEL

Writing:	Charles C. Collins Karl O. Drexel
Editing:	Kathleen A. Blake
Typing and Proofreading:	Cheryl A. LaFleur

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PARTICIPANTS IN PROJECT

District Task Force for Initial Conception and Planning:	John I. Carhart
	Charles C. Collins
	Karl O. Drexel
	Leonard Grote
	John Porterfield
	Richard Worthen
Administration:	John I. Carhart, President
	Charles C. Collins, Dean of Humanistic Studies
	Vincent C. Custodio, Dean of Behavioral Sciences
	Ricardo Ontiveros, Dean of Social & Economic Sciences
	Joy Swan, Dean of Natural Sciences
	Chester Case, Professional Development Facilitator
	Don Donatelli, Director of Learning Resource Center
Project Planning and Instruction:	Marilyn Alquizola, Language Arts Instructor
	Olga Arenivar, Language Arts Instructor
	Sandra Booher, Language Arts Instructor
	Gail Boucher, Behavioral Science Instructor
	Kate Brooks, Physical Science Instructor
	Jay Cameron, Language Arts Instructor
	Stanley Chin, Physical Science Instructor
	Estelle Davi, Behavioral Science Instructor
	Paul Hansen, Biological Science Instructor
	Larry Howard, Humanistic Studies Instructor
	Jane Hunnicutt, Social Science Instructor
	Stanley Jacobs, Language Arts Instructor
	Marjorie Lasky, Social Science Instructor
	Henry Lawson, Social Science Instructor
	Ross MacDonald, Language Arts Instructor
	Ofelia Marino, Behavioral Science Instructor
	Bob Marshall, Social Science Instructor
	John Maltester, Humanistic Studies Instructor
	Christine Meek, Biological Science Instructor
	Connie Missimer, Humanistic Studies Instructor
	James Preston, Social Science Instructor
	Ed Rocks, Physical Science Instructor
	Alexander Sample, Behavioral Science Instructor
	Thelma Scott, Behavioral Science Instructor
	Marlan Shanks, Humanistic Studies Instructor
	Stanley Smith, Humanistic Studies Instructor
	Gene Thomas, Behavioral Science Instructor
	Dorothy Tsuruta, Language Arts Instructor
	Eric Yeoman, Biological Science Instructor
Evaluation:	Leland L. Medsker, Professor Emeritus in Higher Education, University of California
	Karl O. Drexel, Superintendent Emeritus, Contra Costa Community College District

FORWARD

Los Medanos College has had great leadership and support in the development of its general education program from District Governing Board members, William P. Moses, Lloyd Farr, George R. Gordon, Lee R. Winters, William R. Baldwin and from former board members, Glen Clementson and Bill Kretzmer.

The foresight of retired chancellor, Dr. Karl Drexel, led him to initiate a program of planning in which the philosophical bases of general education were explored in depth and were tied to the institutional goals of presenting ethnic, women's, and international perspectives. Dr. Harry Buttimer, the current chancellor of the Contra Costa Community College District, has not only endorsed its philosophic base but has given his full and continued support to the Los Medanos College general education program.

A great deal of gratitude must go to every faculty member and administrator who worked for many long and difficult hours converting some basic concepts about general education into a working model. I know I speak for the Los Medanos College staff in giving special recognition to Dr. Charles Collins. We were fortunate to have Dr. Collins as our teacher in this endeavor. The logic and clarity of his concepts plus his untiring efforts have inspired us to overcome some difficult sessions.

In my judgment, the program is both exciting and is conceptually and philosophically valid. We now have a total and comprehensive general education program underway. As is true with any new program, it will need some modification and additional evaluation as we gain more experience. Yet I am confident that students and staff members for many years to come will applaud the innovative general education model that was created in these opening years of Los Medanos College.

John I. Carhart
President

ACKNOWLEDGEMENT

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CHAPTER 1

Philosophic Considerations

In every age and in every generation one of the most important questions that ever gets asked--or fails to get asked--is "What should be taught?" It is this question which gives education its importance and sometimes makes it a battleground. In a vague way educators sense that it is this question, if seriously considered, that would make their function the most vital one in the society.

Educators do not feel their preeminence very often because they don't really grapple with this question. They teach what they were taught. This usually means the narrow discipline which occupied their time and effort during the most mature years of their own preparation. This is understandable since it seems the easiest and most natural way to go. It is not all bad either, since sometime in the recent or dim past their specialty, their discipline, was a legitimate part of the answer to the question "What should be taught?"

Yet educators are expected to devise the curriculum that their college is going to offer. They are expected to ask the question "What should be taught?" But to answer adequately requires that the answerer be a philosopher, an analyst of the society. It is a curious fact that educators are not given preparation as analysts of the society. Some, but not many, may have been given a course or so in the individual needs of students. However, that is not the same thing as being prepared to parse out the present and future needs of the society. As a matter of fact, individual needs are often in conflict with societal needs, and to focus on the needs of the individual may blur the perception of the needs of the society.

Creating a new college is like starting a new life, or like turning over a new leaf. There is time and opportunity to consider past mistakes and to begin to forge a rationale for why the college exists and what it purports to do. So it was with Los Medanos College. During the planning years and during the opening years a serious effort was made to answer the question "What should be taught?" No claim is made that the participants were uniquely qualified to make an analysis of the society, or that it was definitive. Yet educators cannot in good conscience sidestep the issue. They have to try. They have to say these are our assumptions, these are our philosophic postulates, these are our perceptions of the world and this is the logic by which we put it all together and arrived at this curricular model.

The thinking and planning for the Los Medanos College curriculum went on from the late 1960's to the present (1975) and followed the pattern of an expanding spiral, including more and more people. It started with Superintendent Karl O. Drexel and Assistant Superintendent for Planning, John I. Carhart, and, as administrators and instructors were hired, grew to include the whole professional staff. All the debate, all the false starts, all the compromises, all the insights and breakthroughs cannot be recaptured and, even if they could, are probably only of local interest. The attempt, particularly in this first chapter, will be to lay out the larger philosophic considerations that led to the general education model now being used and evaluated at Los Medanos College. There will be some return to these considerations and some backfilling and adding on in the subsequent chapters describing the model itself. But the starting point is educational philosophy.

A Necessary Disclaimer

This book will justify, describe, and give beginning evaluation of a general education model. The opening chapter will present a detailed philosophic argument in favor of general education as a principle and in support of the innovative aspects of the Los Medanos College model of general education. Since the spotlight will always be on general education, the reader may get the impression that a case is being made for general education and against special education--that Los Medanos College has abandoned career training, pre-professional training, preparation for transfer, exploration of individual interests and other such traditional functions of the community college.

Such an impression, though understandable since attention will be focused on general education, would be absolutely false. The argument will be for general education as a hub of the total curriculum and as a requirement for the institutional endorsement of a degree. However, the reader should understand that, to continue the metaphor, there are many spokes leading out from this hub and that the whole wheel of the curriculum should include the many programs in career training, pre-professional training, preparation for transfer, and so on. Certainly, Los Medanos College has full-blown programs in technical-vocational occupations, in human service occupations, in business occupations, in allied health occupations, in the performing arts, in physical education and sports, in all the traditional transfer programs, in continued education in professional fields, in developmental or remedial training--and even this list is not exhaustive.

Yet it would also be misleading to imply that general education is only one among equal functions in a community college, or in any college. It is more basic. It does have centrality. It does have priority. It does, or at least should, apply to all. So, with this disclaimer of any idea that the curricular hub is the whole wheel, attention will now be focused on the case for the Los Medanos College general education model.

The Justification for Public Education

Community colleges are tax-supported institutions. In California roughly 60 percent of all costs are paid by district property taxes, and the remaining 40 percent are paid by general state taxes. Any high school graduate or any person over 18 years old who can profit from instruction may attend, tuition-free. The basic rationale for tax support of public colleges is to develop a knowledgeable citizenry prepared to work for the common good. Every other reason for the existence of a tax-financed college has to be secondary: pre-professional training is secondary; career training is secondary; preparation for transfer is secondary; student exploration of individual interests is secondary. All of these are commendable objectives, yet they have to give way to the overriding objective of preparing this society of human beings to advance the welfare of humanity.

If the major objective of colleges were to train a competent labor force, then the costs should be borne by those industries that will profit from the competence, the know-how, of these well-trained workers. The same argument applies to the individual. If the major objective of a college education were to prepare the individual to earn a better living (which it does), then that individual should pay for this means toward greater profit--in advance if the parents can afford it or in arrears if the parents cannot. There is equity in everyone's paying for education only if everyone profits from education. And everyone profits from education only if education serves the general welfare, the common good.

Certainly, the first obligation of an educational institution to the society which supports it is not to increase the Gross National Product (nor the Net Individual Product) but to improve the quality of life of the people in the society. G.N.P. and quality of life are not synonymous terms. Perhaps Gross National Services should be the area of expansion. There is mounting evidence to suggest that G.N.P. must be curtailed to avoid ecological disaster. The task may be to help the "have-nations" and the "have-people" see the pragmatic and ethical merit in a more equitable sharing of material goods with the "have-not nations" and "have-not people", rather than in elevation of their own standard of living. Whatever the rightness or wrongness of this societal analysis, it makes the point that an educational system oriented toward improving the quality of life is significantly different from an educational system oriented toward increasing the Gross National Product. The justification for financing colleges by the taxes of all the people is the expectation that the education received at these colleges will improve the quality of life of all the people.

Establishing Priorities

Some knowledge, with its attendant attitudes and values, is more crucial for everybody to know than other knowledge. Consider the adjectives used to modify the noun knowledge: arcane, esoteric, special, basic, fundamental, general. It is self-apparent that no one can learn everything, and it is equally obvious that no college, particularly no community college, can teach everything. Priorities have to be established, and that which has general value must take first place.

The curricular offerings of a college and the curricular requirements imposed by the college reflect a collective judgment of what is important to learn and to know. It is doubtful if any society can afford a laissez-faire educational system any more than it can afford a truly laissez-faire economy. It is an absurd misreading of freedom to tolerate teaching as the instructor's "doing his thing" or to tolerate learning as the student's "doing his thing". To move quickly to the ultimate in this argument, if human survival and/or planet survival is in jeopardy, then every college must become a college for survival. The judgment has to be on how perilous the threat, not on whether there should be total response to a total threat.

If then it is true that some knowledge is more important for everybody to know than other knowledge, this justifies colleges' having certain curricular requirements. Requirements are not a violation of personal freedom if the people involved have a voice in saying why, what and how much should be required. Those involved are not just the students who will meet the requirements but all representatives of groups who stand to lose or gain by imposing the requirements. The judgment on what is important enough for all to learn has to have input from those who are most knowledgeable in various fields (scholars), from those who will do the teaching (educators) and from those who will be taught (students). The decision on what is important enough to teach to everybody must have its genesis in the thinking of serious social analysts, be initiated by administrators and faculty members, be endorsed by members of the board of trustees as elected representatives of the people and be constantly reviewed and evaluated by the whole academic community including the recipients, the students. This process of collective judgment and decision generates the authority to override individual freedom in the interest of the general good.

The criteria for determining what should be classified as general education are these: The subject matter provides foundation knowledge necessary for understanding the world, the society and the culture in which people live. It encompasses that content which all people need to know in order to lead self-fulfilling lives and be responsible contributing members of the society. The content will be intradisciplinary in that any one general education course will be based on concepts, principles, attitudes and beliefs which are common to the other disciplines within that area. The content will be interdisciplinary in that it is related to all other knowledge and is basic to moving to higher and higher levels of synthesis. The subject matter will provide knowledge which will directly help the student cope with a complex changing world. The knowledge to be gained will increase the options for action and will thereby extend the freedom to choose wisely. And finally, the knowledge learned will lead the student easily and directly into consideration of the ethical implications of this knowledge. Admittedly, these are sweeping criteria, but they will become more precise as their philosophic groundings are developed, and they will be translated into course names as the general education model itself is described.

The General Welfare and General Education

The most important human functions are to live and be accepted as a decent human being; to act as an intelligent, concerned citizen; to lead a meaningful life ("The life which is unexamined is not worth living"); to fulfill potential; to relate with minimum harm and maximum benefit to other people and to the self. These crucial functions are not limited to any elite. They apply to everybody. Neither should preparation to perform these functions be limited to any elite. The preparation should be available to all.

These human functions, if performed well, add up to the common good, to the general welfare. However, they don't just occur, like breathing. They have to be learned. The common good can only be served if the people seriously think about what it is and how to achieve it. People can't think in a state of mental vacuum. They have to have the medium of thought (symbols), know how to manipulate symbols (thought processes), know the gravity and dimensions of problems and have knowledge to bring to bear on the possible solutions to these problems.

Even knowledge is not enough. Knowledge is the basic ingredient, but wisdom is integrated knowledge in which the maximum number of interrelationships is seen and understood. Wisdom is probably even more than that. It seems to involve the character and personality of the knower as well as the integration of the knowledge, for most learning is an affective as well as a cognitive experience. Mind cannot be separated from body, and everything coming into the mind is filtered through the personality and character of the perceiver. To the degree that the brain is a thinking machine it is oiled and fuelled by emotional juices. The human being is all of one piece, and emotions, attitudes and values are part and parcel of the total person. Not much has been gained if the mind has moved beyond racism but emotional attitudes have not. Knowledge without ethical character development may only make the person into a more knowledgeable villain. Certainly the most destructive criminals in history have been "educated" ones.

But colleges cannot simply present an all-embracing course, Wisdom 1A; they can't even present a course, Knowledge 1A. Everything cannot be taught or learned at any one moment. It is convenient to treat knowledge in what appear to be its natural subdivisions. Unfortunately, this often leads both the teachers and the students to perceive only one segment of knowledge. This kind of narrow focus can result in distortion, can impose rigid boundaries on thinking and can prevent the move to a higher level of synthesis. Yet interrelationships cannot be made if people do not know precisely what is being related to what. It is an age-old and unsolved problem. Perhaps the human penchant for breaking things down into sizes that can be handled needs to be respected but at the same time compensated for. Maybe the big, broad-stroke picture and the fine-stroke, detailed picture need to be presented in a constantly alternating sequence. Perhaps the students have to be directed back and forth from common principles to detailed knowledge and from detailed knowledge back to common principles.

So, although knowledge is interrelated and has a basic unity, it cannot all be said in one interminable sentence. Human communication requires that it be divided into some logical order. It is possible to parcel knowledge into an almost infinite number of sub-divisions and to act as if each fragment were a discrete, self-contained bit. Indeed, most college catalogs are tangible evidence of this possibility. But to truly encompass knowledge this way students would have to take an impossible number of courses and have a genius for integrating them into a meanginful whole. Instead, the history of education is a chronicle of efforts to arrive at some natural groupings and priority system of knowledge: the trivium, the quadrivium, a classical education, a liberal education, a general education. No claim is made that Los Medanos College has arrived at the definitive, immutable sub-division of knowledge. Even so, there is both history and logic to support parceling knowledge into these broad and rather obvious areas: the behavioral sciences, the social sciences, the biological sciences, the physical sciences, the language arts and the humanistic studies. It is necessary for all people to have some knowledge and beginning wisdom in each of these areas if the general welfare is to be promoted.

Intradisciplinary and Interdisciplinary Knowledge

It has been asserted that all knowledge is interrelated. This can almost be taken as a given, for who can deny it? Even the researcher on the arcane subject of emblems embossed on medieval shields would soon find himself touching upon biological species, the chemistry of metallurgy, art, human myths and demonology, social status, the power of symbols, religion and so on and so on. However, it is not as if any one thing is equally related to all other things. Some things are more related than others. If this were not true, it would not be possible to categorize. Yet, it is possible to categorize; e.g., the physical sciences and the behavioral sciences are two separate, meaningful categories.

The human mind appears to be capable of conceptualizing a category and pinning a name on it. The word-symbol "social science" becomes a meaningful concept. To be sure, people would argue about what rightfully belongs within that category and that symbol. But such an argument demonstrates the next point: things are related and can be categorized to the degree that they have commonalities. The disciplines history, political science and geography can all be called social sciences because they have some elements in common. The disciplines psychology, sociology, and anthropology can all be called behavioral sciences because they have some elements in common. The disciplines chemistry, physics, geology and astronomy can all be called physical sciences because they have some elements in common.

The fact that there are disciplines which can be named (reading, composition, speech) and the fact that the combination of these disciplines into a category can be named (language arts) must mean that there are some discrete qualities to each and some qualities common to all. The commonalities are concepts, principles, generalizations, attitudes, belief systems that apply, or are as germane, to one as to the others. These commonalities are generic and if extracted and taught in a generic course would, when coupled with the study of individual disciplines, give a better, a more intrarelated foundation to each discipline course and would reduce redundancy as students moved from one discipline course, e.g., psychology, to a related discipline course, e.g., sociology. Within the context of this model then, intradisciplinary will mean the relationship of disciplines within a category or area of knowledge. Interdisciplinary will mean the relationship of disciplines across categories or areas of knowledge.

Intradisciplinary knowledge resides within the commonalities of related disciplines. The task, then, is to agree upon the generic factors, extract them, assemble and present them in a sequential way and keep showing the connection between what is generic and the discipline and the discipline and what is generic.

Interdisciplinary knowledge is not so much an inherent overlap of one area with all other areas as it is mutual applicability to problems that transcend any one discipline. No doubt there are overlaps or commonalities between, say, chemistry and economics, but these are difficult to see, extract and teach. However, if an outside problem that calls for the contribution of both disciplines is posed, e.g., the use of DDT, then the interdisciplinary nature of knowledge pops into focus. So it appears that the pedagogy of intradisciplinary and interdisciplinary teaching has to be different. Intradisciplinary teaching calls for finding and highlighting the common elements and showing their connection. Interdisciplinary teaching calls for applying the knowledge of disparate disciplines to problems that have their roots in disparate disciplines.

Coping in a Complex, Changing World

Democracy in the American, as opposed to the Athenian, model is predicated upon a level of universal education equal to the growing complexity of the society.

Both democracy and universal education take as a given that the ordinary citizen has fundamental competence to learn to direct his/her own destiny and to participate in directing the affairs of the society. To deny this assumption is to argue that there is a natural aristocracy and that the educational investment should be heavily weighted toward preparing the superior to direct the lives of the inferior. Not many people want to admit to this last statement--at least not out loud--yet to divide a curriculum into vocational training for the many and general, liberating education for the few is a behavioral acceptance of this assumption.

The obvious fact is that the world grows and will continue to grow more complex. It is a paradox that great complexity requires more intense specialization, yet at the same time more highly developed ability to integrate knowledge. The level of competence required of citizens to choose wisely among known alternatives and thereby direct their own and their society's destiny rises in direct proportion to the society's increasing complexity. If the fluoricarbons in aerosol sprays are destructive to the ozone layer which protects against excessive ultra-violet rays, the citizens in a democracy have to know this and set up a hue and cry to keep the short sighted and greedy from sacrificing the ozone layer for their own immediate profit.

Most people are aware that scientific and technological knowledge rapidly multiplies, and particularly those who have an economic and nationalistic orientation are usually willing to support increased education to keep such knowledge multiplying. However, many of these same people are less willing to see that the political, social and ethical complexities of the present society have already outgrown the sophistication of the general citizenry and that frightful dangers lurk behind oversimplified answers to complex problems. An example: who should decide the issue of the danger of proliferation of nuclear power generators vs the need for more energy? If it is to be the citizens of a democracy, they need not be experts in either nuclear pollution or in energy generation, but they do need some general knowledge in both fields; they need to grasp the definition of the problem and the possible options for solution within the context of a thought-out world view.

It is not just mystical to say that the average person may have a better head for wisdom than for detailed knowledge, for wisdom probably flows as much from character and ethics as it does from a vast storehouse of facts. Since mastery in many subjects cannot be expected of the average citizen, great reliance on building staircases of facts up to inductive conclusions may be misplaced. Those with average intellectual endowment may be better served if first helped to extract and understand basic principles and then given clear statements on the application of these principles to the process and problems of living. Command of a great array of facts may be less important than understanding of the implications of such facts. One does not need a Ph.D. in biology to understand that a polluted world becomes uninhabitable. Yet one does need to know the gravity and imminence of the problem and the options for possible solution. Neither does one need expert military knowledge to know that major wars in a nuclear age can only be lost, never won. Clemenseau was right: "War is too important to leave to the generals." The point is that general education must deal with the basic principles of the major fields of knowledge and must concern itself with the implications that these principles, and the backup knowledge which supports them, have for the problems which put human society in such jeopardy.

Actually, the more rapid and profound the changes in a society, the less reason there is for early specialization in education. There is no way to teach specifically for occupations that have not yet been created. There is no way to teach specific solutions to social problems that have not yet been clearly perceived and defined. However, the constant factor in this fluid situation is thinking. It is possible to develop the means of thinking; the media of words, numbers, graphics, images, and other symbols; the logical and pycho-logical methods of analysis; the attitudes of approach; the exploration of what is worth the doing; and, of course, the use of the known in dealing with the unknown. There can't be specific preparation for an unknown future, yet it is hard to imagine any new occupation or any new problem that will not be rooted within the general education categories of behavioral sciences, social sciences, biological sciences, physical sciences, language arts and humanistic studies.

Education for Freedom

There are, of course, several levels of freedom. The basic freedoms from bodily confinement and from discrimination and oppression are not directly dependent on education. In addition to such freedoms-from is the freedom to make behavioral choices among known alternatives on the basis of probable implications and consequences. In this sense a person is not born free nor able to fight to become free; men and women must be educated to be free. They must have knowledge of the options open to them and must be able to analyze what the personal and social consequences of each option are before they truly have freedom of choice. If people have knowledge only of option A and are unaware of options B, C and D, they do not have the freedom to chose options B, C or D. Similarly, if people have a vague awareness of choices A, B, C and D but do not know the ethical and other consequences of each choice, the freedom is without responsibility. Looked at this way, extending education for choice-making to the many not only makes more people free but also checks the capricious license of the powerful and the blunders of the unknowing. Knowledge of choices makes responsibility integral to the definition of freedom.

Part of the education for freedom is learning to see that freedom is never absolute, for in any social order the state must exercise some abridgment of the will of every individual in order to broaden the freedom of all individuals. As a social institution, as an agency of the state, the college may make rules, may endow certain people with power over others, may establish priority of values, may require that all students be exposed to certain bodies of knowledge, and in many ways limit the unbridled exercise of the individual's will. Such constraints certainly do reduce the choices for action of the individual. The college can stipulate that the student must take such and such pattern of general education courses or forego the institutional endorsement of an academic degree. There can be no alternative to this if the welfare of the many is to be served equally with the welfare of the individual.

This paradox, this conflict of the individual vs the state, can only be resolved by seeing the individual as part of the state, by involving all those who are affected by decisions as active participants in the decision-making process. In terms of the general education requirements of a college, the spiral of involvement in defining and developing the general education program must expand from the initial planners to include the teaching staff and, at least for evaluative input, the students. Restrictions on the individual student's freedom to learn what he pleases and on the individual teacher's freedom to teach what he pleases have legitimacy when the whole academic community has some voice in imposing these restrictions.

Education for Survival

In the past, colleges have been looked upon as institutional means by which a society maintains and enhances itself. There is overwhelming evidence in this last quarter of the 20th Century to argue that maintenance and enhancement must become secondary to a much more chilling and dramatic societal goal--survival--survival of humanity, survival of the social order, survival of the earth upon which humanity abides.

It is recognized, of course, that people have always faced mortal dangers and that the individual person invariably succumbs to one or another of them. Yet there is a categorical difference between jeopardy to one person's life or even the lives of large groups and jeopardy to life itself; between threat to the social order of a nation and threat to the social order of the world; between destruction of personal property and destruction of the earth.

In varying degrees all institutions of higher education have become aware that they are colleges for survival. The palpable imminence of the dangers has made even the timid bold. Educational planners have come to see that one of their primary tasks is to help students educate themselves to cope with the world problems which put their generation and future generations (?) in such jeopardy:

with the clock of history ticking toward nuclear annihilation,
with the physical and psychological inundation of population,
with the possibility of irreversible ecological disaster,
with the impending violent struggle over the redistribution of the world's goods,
with the failure of economic theory to give direction to a post-industrial
corporate state,

with the limits of national sovereignty in a nuclear age,
with the alienation and illnesses of the spirit,
with the erosion of credibility and faith in the democratic, or any governmental, process,
with the loss of conscience and the dimming of outrage toward evil,
with the dangers of an unbridled science and technology,
with the failure to accept a pluralism of race, of culture, of life style,
with the need for accommodation to new modes of creativity and self expression,
with the creation of a new morality and a new ethic to fit a different social order.

Certainly, highly specific vocational training and/or highly specific academic training in a discipline do not appear to be very promising preparation to deal with this formidable array of societal issues. Nor can these societal problems be solved by any elite; they are woven into the fabric of the lives of all people and therefore have to be faced by all people. Each requires intradisciplinary knowledge for its understanding, and the interconnectedness of all these societal issues mandates an interdisciplinary approach to their possible solution.

From Cultural Pluralism to World View

No one of the societal issues listed in the previous section is limited in its effect to a locality or to a state or even to a nation. Every one of them is a world problem, and world problems require a world view among those who are going to try to solve them. Developing a world view as a mental frame of reference among community college students is a tall order. They are by age, by previous education, by experience and by social class both callow and parochial. Yet they are capable of learning, of understanding their own perils, of examining options and of making judgments on the side of good sense. A beginning has to be made.

One such beginning is to help community college students accept and understand sub-cultural diversities. Perhaps it is just as well that the United States never became the melting-pot of nationalities and cultures that it was supposed to become. Even in 1975 there remains a Joseph's coat of rich and colorful sub-cultures. If students can be helped to accept and honor their own sub-cultural differences and to relish and appreciate the sub-cultural differences among their fellow students, then they have taken the first steps toward a world view. It is both unrealistic and ironic for colleges to develop imposing programs of African Studies or Latin-American Studies without first, or concurrently, developing acceptance of cultural pluralism in this society. Anglo-Americans are not going to have much to say to, nor will they be heard by, Africans and Latin-Americans until they can talk to and be heard by Black-Americans and Chicano-Americans.

But this last statement is not to give uncritical support to ethnic studies as they have typically developed in community colleges. They have often become Black or Brown bags in which both ethnic instructors and ethnic students get trapped. The same criticism can be levelled at women's studies. Although they may have merit in consciousness-raising and in developing self-love, they frequently become separatist (and educationally dead-end) programs which really let the majority White males off the hook. If, however, a college systematically sets out in a compensatory fashion to hire Black and Chicano and Latino and Asian and women instructors, then there will be a built-in tendency to make ethnic studies and women's studies pervasive throughout the whole curriculum. There will be models who will contribute toward consciousness-raising and the development of self-love, and there will be champions to disabuse the Anglo and male majority of at least their most flagrant chauvinistic notions.

Of course there is no reason to believe that ethnic instructors or women instructors have a more fully developed world view than Anglo male instructors. They do, however, contribute to that first step of acceptance of cultural diversity. From there on it is up to the college planners to make expansion of perception toward a world view part of the professional staff development program and to insist that content with a world orientation be incorporated into all those course outlines where it has fit and legitimacy. Most important, if the college really addresses itself to societal issues, and if students are forced to face up to them and to try to educate themselves to grapple with them, it will inevitably follow that they will broaden their perceptions to understand at both an intellectual and an emotional level the essential wisdom of John Donne's famous assertion that "no man is an island" and Marshall McLuhan's quotable insight that "the world is a global village."

The Ethical Implications of Knowledge

It has fast become a commonplace observation that the world faces not a crisis in knowledge but a crisis in ethics. In most areas of concern humanity does not suffer from a dearth of knowledge, nor does new knowledge hold much promise for getting people out of the trouble they have created for themselves. Further, it does not do much good for only a few, an ethical elite if you will, to think out the ethical implications that follow from knowledge. The big decisions on societal issues require that most people understand the implications of knowledge even if they don't know the details of that knowledge. No one can be an expert on everything, and some do not become experts on anything.

If the above statements are granted, then the priorities for the educator become clearer: emphasize the implications of knowledge to the many and emphasize the details of knowledge to the few. The "many" and the "few" will, of course, constantly keep changing positions depending upon their interest and commitment to different areas of knowledge. Hence it is not always the same people who get the depth treatment (facts) and the same people who get the breadth treatment (implications). It is not only absurd but also dangerous to focus primarily on knowledge for the few while the ethical wisdom of the many goes undeveloped. It is absurd because only the few become experts, and it is dangerous because in a democracy the many make the fateful decisions. Admittedly, this makes for difficult teaching since depth knowledge and broad implications are not easy to teach at the same time to a mixed class. The solutions to tough problems are never easy and are sometimes impossible. Nonetheless, the struggle has to be made.

To help students see the implications of knowledge involves the instructor, willy nilly, in the issues of ethics. As the biblical allegory warns, to partake of knowledge is to assume an onerous burden, for to know of good and evil requires that one act for good or for evil. It is difficult, if not impossible, to get off the hook. "The great end of life is not knowledge but action," said the biologist and teacher Thomas Henry Huxley. W.H. Auden echoed Huxley's dictum in his poetry: "Act from thought should quickly follow: What is thinking for?" The conventional liberal says that the end of this line of argument is violation of the objective neutrality that is supposed to be an attribute of academic freedom. But is this true? If the teacher exercises scientific rigor and professional responsibility in the collection of data and the analysis thereof, then does that teacher not have the obligation to forcefully state both the conclusions and the ethical implications of his thinking? It is hardly an act of responsibility to present only facts and to build no bridges allowing the student to cross over to conclusions. It is certainly not an act of responsibility to hide safely behind a facade of objectivity or to simulate neutrality by pretending that all points of view have equal validity. There simply are not two equal sides to every question. Resolving conflicts between nations by threat of or use of nuclear bombs is not a viable option. Organizing a society along racial lines is not a viable option. Uncontrolled population is not a viable option. Countenancing pollution of this fragile planet is not a viable option. An ever-expanding Gross National Product is not a viable option.

Autonomy Within the Framework of Structure

Education should be viewed not as a discrete phase in life but rather as a process that goes on throughout life. It is only tradition and the restriction of available time among older adults which have fostered the now waning notion that education is an enterprise only for youth. Labor analysts are fond of saying that the production worker in the economy of the foreseeable future will be obliged to change his occupation several times in his lifetime. Will not this worker as a citizen also be obliged to periodically update his conceptualization of a complex and changing world?

Occupational and societal flux argues for education as a lifetime process. But lifetime education implies eventual self-education, for the student cannot have his education structured by college mentors throughout his entire life. As a matter of fact, unless education becomes more and more autonomous it resembles indoctrination more than it does education. However, designing one's own education is a difficult task. It is like being a curriculum maker for one person, namely the self.

Professional educators don't find curriculum designing easy, and the amateur student hardly knows where to begin. Further, community college students as a group have been shown to register low when tested on autonomy scales. They are often those whom Erich Fromm described as seeking escape from freedom. A person learns to be autonmous (self-directive and self-responsible) by having experience in autonomy. What appears to be needed is a highly structured learning experience within which the student is increasingly forced to take more and more responsibility for its design, its process and its product. Such experience of autonomy within a framework of structure is needed in both the special education and the general education of the student. The student's own special interest and his closer relationship to instructors teaching his specialty make it more likely that his autonomy will develop spontaneously in that segment of his education. In the student's general education this move to autonomy will occur only if it is made to occur. Thus, a means must be found to build it into the structure of the general education model.

All of the philosophic considerations discussed in this opening chapter add up to yet another postulate: A community college should serve more as a change agent in the community than as a mirror of the community. The general education model being used and evaluated at Los Medanos College proposes to make the college a change agent in the community. Before describing this model and detailing all its dimensions perhaps it would be well to try to draw a word picture of the community--the community outside the walls of the college and the academic community inside the walls.

CHAPTER II

The Local Context

The title of this book is General Education: The Los Medanos College Model. the term "model" carries the connotation of transferability--that the general education program to be described could, with reasonable adaptation, be used by other colleges. Of course no model in education can be used like a metal template in a factory to stamp out exact replicas, one after the other. For complex organizations, a model can only be expected to have general fit. If it operates within a roughly similar context, and with adaptations that also take account of differences, it should work elsewhere. On the other hand, if the context is completely singular no model can be drawn from it; it is unique, it is one of a kind, it is the environment of Earth compared to the environment of Mars.

The local context of a college includes many factors, some of which are inside the buildings and some outside, some of which are obvious and some very subtle. For example, vital statistics on the faculty can be reduced to numbers and are there for all to see, but the morale of the faculty or their psychological readiness for change are intangible and have to be inferred. The subtle factors can only be reported subjectively, and that always requires that they be taken with more than one grain of salt. As far as possible the description of the context will be objective. It will tell what is known about the community, the student body, the college, and the faculty. It will however also attempt to deal with more subtle factors,in particular, the symbiotic relationship between the Los Medanos College General Education Program and 1) its Professional Staff Development Project and 2) its unusual governance model.

The Community

Los Medanos College is located on the boundary between the towns of Pittsburg and Antioch and serves the eastern portion of Contra Costa County. The weather and agriculture of this area relate it to the Sacramento Valley, but the orientation of the industry and allegiance of the people is directed more toward the San Francisco Bay Area. To the north of the college the dominant geographic feature is the confluence of the two great rivers which drain the Sacramento and the San Joaquin Valleys. To the south the countryside is physically beautiful with smooth, undulating hills turning green with the first rains of fall and tawny with the sun and heat of late spring and summer. The river, though seriously polluted by industrial and agricultural drainage, is still lovely to look at and in the delta region is attractive to tourists. To the east is farm country and the two very small agricultural towns of Brentwood and Oakley, and to the west, across a small range of hills which local wags call the Himalayas, is the ever-expanding suburbia of Concord and Walnut Creek.

Within a five mile arc from the college are any number of huge industrial plants, the most notable being U.S. Steel, Union Carbide, Dow Chemical, Pacific Gas and Electric, Dupont, Continental Can, Fibreboard and Crown Zellerbach. These are multi-million dollar industrial complexes and therefore contribute heavily to the property tax which pays approximately 60 percent of all college costs. These industries and the rather high assessed valuation of homes in the Contra Costa Community College District make it one of the richer districts in

California. Los Medanos College, like its two sister colleges Diablo Valley College and Contra Costa College, was built without bonded indebtedness, and the same year that it opened the District Governing Board actually lowered the tax rate for support of the colleges.

There are really three sub-communities within the area zoned for Los Medanos College. There are the farm communities to the east, the industrial, blue-collar communities of Pittsburg and Antioch, and the outreaches of suburbia in Concord and Walnut Creek. There are marked differences among these sub-communities even though the social class range, to use the sociologist W.L. Warner's categories, is no broader than from lower-lower to middle-middle. This is another way of saying that there are some people who are poor in every sense of this term, many who get by financially but who lead rather impoverished lives, and few who are rich in either money or cultural background. The owners and top management of the big industries do not live in the area and have only invisible political clout. Actually, the richest and most politically prominent residents are the business people and real estate developers, many of whom can proudly say that their parents or grandparents were immigrant fishermen from Italy.

There are also notable ethnic differences. The Chicanos or Mexican-Americans come from the farm communities and from Pittsburg and West Pittsburg. Since the total number of Blacks is not great, their high percentage in Pittsburg and West Pittsburg (45 percent in Pittsburg High School) is really misleading. With the exception of some old Mexican-American families Antioch was for years almost completely White Anglo Saxon. Only recently have some middle-class Blacks and more middle-class Chicanos moved into this growing town. The most middle of the middle-class students come from White suburbia in Concord and Walnut Creek.

These ethnic differences loom larger in the minds of the people than reality seems to warrant. Pittsburg is perceived by many in Antioch and in Concord as being a small Harlem, which is a considerable stretching of the truth. On the positive side, many residents perceived the coming of Los Medanos College as the means of integration and reduction of racial tension. Happily, it appears that this is coming to be a self-fulfilling desire. The college has, in fact, tended to bring the ethnic cultures together.

Except in the rather small white-collar contingent and the older and richer families, the education and general sophistication levels of the people in the area, are not notably high. It isn't that the elementary and secondary schools are inadequate, for they are not. It is just that it takes time and out-of-school cultural enrichment means for people to elevate themselves educationally. This is mentioned not as an educator's complaint or in disrespect for the people of the area. It is said frankly because a benchmark is needed from which to measure the progress of the students toward sophistication of world view, a major goal of the general education model. Such a goal for such a student population reflects the faith of the planners in the democratic assumption of the competence of average people to learn to guide their own and their society's destiny. The ambitiousness of the goal also speaks to the urgency of the need for developing a world view in the minds of the world's citizens.

Los Medanos College was a promise to the people in its area long before it was a reality. Many thought it would never come or, if it did, that corners would be cut and that it would be a poor man's substitute for Diablo Valley College, to which the richer residents were already sending their children. Contrary to this expectation, a beautiful campus was constructed, an architectural complex that has become a conversation piece among educators throughout the state. What was awaited so long and turned out so beautifully captured instant pride and loyalty. This is an important point because the people in the area, as is true of most people in the lower-middle class, are essentially conservative, and without their immediate positive identification with the college it would have been much more difficult to launch a bold, non-traditional program.

The Student Body

Los Medanos College is small relative to many community colleges, but because of all the plus factors noted above, the first year's enrollment was much larger than projected. The projection was for 2,400 or 2,500 students with a division of maybe 1,300 in the day and 1,000 to 1,200 in the evening. The fall 1974 total enrollment was 4,106, and again contrary to expectation, the number climbed to over 5,000 at the peak level in spring 1975. After all the dust of adds and drops had cleared, an April 26, 1975 census showed a total of 4,529 students. Of these, 1,864 were enrolled in day classes only, 1,360 were enrolled exclusively in evening classes and 1,305 were enrolled in a combination of day and evening classes.

Other surprising facts surfaced. There were almost as many women enrolled as men. Actually there were more women than men in the day classes. It was a surprise to find that 30 percent of the student body split class loads between the day and evening. It was somewhat disappointing to discover that only 30 percent were carrying 12 units or more. Over 48 percent were carrying 6 units or less. These facts are recorded in Table 1.

TABLE 1

LOS MEDANOS COLLEGE ENROLLMENT FACTS, APRIL 1975

Unit Loads	0-6		6.5-8.5		9-11.5		12 or more		TOTALS		
Sex	M	F	M	F	M	F	M	F	M	F	TOTAL
Day Classes	339	528	67	89	99	96	338	308	843	1,021	1,864
Evening Classes	523	577	52	46	57	6	36	8	668	637	1,305
Combination Day & Evening Classes	88	96	98	114	184	116	430	234	800	560	1,360
TOTALS	950	1,201	217	249	340	218	804	550	2,311	2,218	4,529
PERCENT	48%						30%		51%	49%	

The popular notion is that community colleges are populated by the high school graduates of the preceding two years. To be sure, these youngsters are there but so are their older brothers and sisters, sometimes their parents and, occasionally, their grandparents. The median age of Los Medanos College students extrapolated from data in the spring 1975 census was 26. The age distribution for students with one or more classes in the day, and for students in evening classes only are given in Table 2.

TABLE 2

AGE DISTRIBUTION OF LOS MEDANOS COLLEGE STUDENTS, APRIL 1975

Age	17	18	19	20	21	22	23	24	25-29	30-34	35 & up	TOTAL
Day	5	70	478	327	167	105	94	106	574	482	816	3,224
Evening	5	33	45	45	52	37	43	57	300	215	473	1,305

In the day classes 1,872 students of the 3,224 enrolled (58 percent) were 25 years or older. Although the overall percentages of men and women were about the same, the percentage was higher for men in the 25-29 year bracket, less in the 30-34 span, but then the balance tipped the other way for the 35-and-up category. This can be seen in Table 3.

TABLE 3

AGE DISTRIBUTION OF LOS MEDANOS COLLEGE STUDENTS BY SEX, APRIL 1975

Age	Male		Female	
	Number	Percent	Number	Percent
25-29	338	59%	236	41%
30-34	273	57%	209	43%
35 & up	330	40%	486	60%

The ethnic classifications used in Los Medanos College record keeping are Black, American Indian, Asian, Chicano and Other (Caucasian). The ethnic distribution by sex for the April 1975 census is given in Table 4.

TABLE 4

ETHNIC DISTRIBUTION OF LOS MEDANOS COLLEGE STUDENTS, APRIL 1975

	Black	American Indian	Asian	Chicano	Other (Caucasian)	All Students
Male	191	26	18	261	1,815	2,311
Female	236	19	25	266	1,672	2,218
TOTAL	427	45	43	527	3,487	4,529
PERCENT	9%	1%	1%	12%	77%	

It is of some interest to note that among all ethnic minority groups except American Indians, the number of women students exceeded the men. It will also be interesting to compare the percentage of ethnic minority students with the percentage of ethnic minority instructors, the figures for which will be given in a later section of this chapter.

Several of these sets of data suggest that Los Medanos College has a working student body. The fact that only 30 percent of the students were carrying 12 or more units suggests that many students are too busy working for money to carry a full load. The fact that 30 percent of the students split their class loads between day and evening sections also suggests that many students were adjusting their schedules to fit with their work. Although accurate records on student employment are not yet available, the staff at Los Medanos College testify that many if not most of their students tell them that they have full or part-time jobs. Further, staff members are disconcerted to find that students almost always put their jobs ahead of their school work. When students tell instructors that they missed, or are going to miss class because of work-schedule conflicts, they almost always act as if this were a completely legitimate excuse and as if nobody should question the priority of work for money above learning. In many cases students do need to work to be in college at all, but when work actually keeps them out of classes, it goes beyond meeting a need; in fact it becomes self-defeating. A subjective conclusion: such students are from the working class and they have working-class values.

Another strong subjective impression should be noted since it bears on "plural pursuits," a concept integral to the general education model. As a group the students at Los Medanos College seem lacking in autonomy. They have not been measured by the Omnibus Personality Inventory or other such instrument, but their behavior seems to confirm consistent reports in the literature that community college students tend to register low on scales of personal autonomy. They are not likely to take the initiative in their own education. Most want education to be packaged for them like meat in a supermarket. They tend to expect the instructor to tell them exactly what to do and how to do it. Too many of them see education as a more or less unpleasant, but happily brief, means to achieve the end of earning a better living (more money). Most are eager, even demanding, for the extrinsic rewards of units and grades while often remaining indifferent to the intrinsic rewards of better understanding and richer consciousness.

The College

Los Medanos College is one of the 103 public community colleges in California. It is the youngest and smallest of three colleges developed within the Contra Costa Community College District. It opened in the fall of 1974 with an enrollment of 4,106, whereas Diablo Valley College and Contra Costa College both opened over a quarter of a century ago and had fall 1974 enrollments of 17,030 and 8,345 respectively. As is true of all California community colleges, the doors of Los Medanos College are open, tuition-free, to any resident high-school graduate or to any resident over 18 years old who can profit from instruction. There are only exit requirements for institutional endorsement, and no entrance tests for admission--or for placement in academic tracks.

The philosophy and goals of Los Medanos College, as printed in its first catalog, read as follows:

...Present curricular programs consistent with the interests, values and needs of students of all ages.

...Offer a comprehensive program of general education to include the behavioral sciences, the social sciences, the biological sciences, the physical sciences, the language arts and the humanistic studies.

...Make respect for cultural pluralism pervasive throughout the entire curriculum and a subject of focus in the general education program.

...Encourage students to design their own continuing education by providing plural pursuits of individual interests within each general education course and, where feasible, in all other courses.

...Make students aware of the relationship of the knowledge they learn to the great societal issues which they and the coming generations face.

...Help students greatly extend, elaborate and refine their world view.

...Provide lower division preparation for a wide variety of careers requiring baccalaureate and post-graduate degrees.

...Offer a whole range of technical, vocational, business and other career programs that lead to immediate employment.

...Present in-service, up-grading and other continuing education curricula and services at times and places appropriate to student needs.

...Develop a comprehensive program of enrichment services which will appeal to the diverse interests and needs of citizens of the community.

...Provide services to students such as counseling, career information, financial aids, job placement, student activities and tutorial assistance which support their educational endeavors.

...Create a climate for learning which is enjoyable, not punitive, which is more cooperative than competitive and which fosters critical thinking and independence of mind.

...Encourage student-faculty relationships and student-student relationships which are based on mutual respect for the dignity and worth of each individual.

> ...Provide a system of admission, placement and registration that encourages and facilitates formal enrollment in courses or informal participation in the community offerings of the College.

The college does not oblige a student to take any prescribed course or courses. However, to secure the institutional endorsement of an Associate in Arts or Associate in Science degree, the student is required to have a C average or better in 60 units, to have met the highly structured 25-unit general education requirement, to have a minimum 18-unit major, to have 2 units of physical education and to have met the proficiency requirements in reading, composition and mathematics. Actually all required general education courses contribute to the general education requirements of senior colleges for the student planning transfer and, of course, there is also wide overlap between general education and major requirements, e.g., Psychology 5TG is a discipline course within the general education requirement in behavioral science and is also a part of the major in psychology. An example of a general education course contributing to a non-transfer major would be Anatomy and Physiology 35TG for the student majoring in nursing.

The academic functions of the college are general education, transfer education, career education and continuing education or professional upgrading. Since the focus of this book is on general education, it is easy to overlook the other functions, particularly career education. To avoid any misunderstanding let it be said here that in addition to all the career fields that call for transfer and additional training in a senior college, Los Medanos College offers a minimum 20 unit Certificate of Achievement in the following careers:

Appliance Repair Technology
Banking and Finance
Cosmetology
Dietetics
Early Childhood Development
Fire Science
Food Services Technology
Management and Supervision
Vocational Nursing
Radio-TV Service Technology
Real Estate
Secretarial Science
Small Engine Technology
Welding Technology

The Faculty

In its first operational year (1974-75) 29 of the College's 58 contract instructors were teaching the general education courses and were deeply involved in the training program of this General Education Project. All other faculty members were involved at a peripheral level but not directly enough to be included in this snapshot picture of the faculty.

Of the 29 general education instructors, 16 (55 percent) were men and 13 (45 percent) were women. This faculty division by sex is not quite the same as the sex division among the students: 51 percent men and 49 percent women. However, it doesn't miss it by much and is incomparably more equitable than the usual sex ratio among faculty in Bay Area community colleges: 72 percent men and 28 percent women. It should be added in self-criticism that none of the women newly hired for Los Medanos College was middle aged. This takes on significance in light of the current movement of middle-aged women returning to college for training.

The age distribution of the general education faculty is bi-modal with most instructors new to the Contra Costa Community College District being in their 20's or 30's and with instructors transferring from Diablo Valley College and Contra Costa College being in their 50's. Even so, the average age in the first year was 36.7. If the four general education instructors who transferred are not counted, the average age of the instructors would not be much higher than the average age (26) of the students whom they instruct. Of course age is not being equated here with rigidity, nor is the plus value of experience being discounted. It is true that there is a certain indelibility in long-sustained perceptions and that those who have perceived general education in one way for a long time have to be remarkably flexible personalities to erase the old perceptions and substitute non-traditional ones. However, whatever foot dragging there was did not appear to be a function of age. Commitment by faculty members to an innovative approach to general education seemed to be most correlated with critical thinking about their own general educations and about what they had previously taught under the general education rubric.

Ten of the 29 general education instructors came from Black, Chicano/Latino and Asian cultural backgrounds. This represents 34 percent ethnic instructors whereas the percentage of ethnic students at Los Medanos College in 1974-75 was 23 percent. All ten of these ethnic instructors were newly hired by Los Medanos College, and among the criteria for hiring was the perspective of cultural pluralism that they could bring. The reasoning was that ethnic perspective, particularly in a college that had rejected the viability of separate ethnic studies, was every bit as valid a criterion as advanced degrees or grades earned in college or even years of teaching experience. As a matter of fact, teaching experience per se was not weighted very heavily since the experience could not directly parallel that anticipated in this model and, more important, because Los Medanos College had its own built-in program for the induction and professional development of instructors. Fifteen of the 29 general education instructors (52 percent) were Kellogg Fellows which, as will be seen, means they had little or no previous experience but underwent an intensive program of professional staff development during their induction year at the college. Eight of the 10 general education instructors from ethnic minorities were Kellogg Fellows. Nine of the 16 women were Kellogg Fellows.

The Professional Staff Development Model

Running concurrently with the year of planning (1973-74) and the first year of operation (1974-75) of this General Education Project, was a program funded by the W.K. Kellogg Foundation for the induction and professional development of instructors. This too was a model developed and now being tested by the Los Medanos College staff. It takes as a given that neither the credentialing process nor graduate training in the universities in any significant way assures the professional training of community college instructors. Both do give reasonable assurance of preparation in the subject area but nothing beyond that. Mastery of a discipline is only the starting place for becoming a professional teacher.

In this model professional staff development is centrally important, so that the program is one of induction of new instructors plus continuing development of all staff members. The college's commitment to staff development is both symbolized by and centered in a new professional position, the Professional Development Facilitator. At Los Medanos College this new position in the ranks of education is being defined and molded by Dr. Chester Case. He is a college staff officer responsible to and in constant consultation with the president. This positioning in the administrative structure is important because as a staff officer he is a help, not a threat, to faculty members, and as a direct extension of the president he symbolizes the highest administrative commitment to the centrality of staff development.

It was not so planned but it turned out that the general education model and the professional staff development model were mutually reinforcing, that they held each other up, that each served the other's purpose. Every concept within the general education model became content in the program of professional staff development. Likewise, the curriculum construction, the learning strategies, the teaching tactics and all other aspects of staff development were applied to the planning and first-year execution of the general education program. The importance of the role of the Professional Development Facilitator will become very evident in the chapters dealing with evaluation. All this should not be interpreted to mean that the general education model will only work if a college has a professional development facilitator to make it work. It should be interpreted to mean that radical departures from traditional ways of doing things in education require that staff members be prepared first to understand these departures and then to develop the means of carrying through on them in a very structured way. Educational models have to be transmitted from the model-maker's head to the heads of those who are going to test and use the model. In this process the model will no doubt get changed a bit--probably for the better--but will at least not be foredoomed to initial incomprehension, early fracture and disorganization and ultimate failure.

The Governance Model

The relationship between the governance model at Los Medanos College and the general education model was also symbiotic, except this time it wasn't just discovered after the fact: it was planned that way. The basic postulate held from the very beginning was that the governance structure should reflect the curricular goals of the college. For example, if a curricular goal is to erase the sharp demarcation between transfer education and terminal training, then there should be no dean of technical-vocational training and his tasks should be assumed by deans with broader jurisdiction. If the goal is an interdisciplinary curriculum, then the governance model should assiduously avoid departments and divisions, for they are by their very nature little discipline baronies and larger discipline dukedoms. If the goal is an integrated curriculum, then the governance model should be structured to channel everybody's ideas into the flow of information about the curriculum; the curriculum committee becomes the committee of the whole.

Several excerpts and the Table of Organization from the position paper "A Statement of Governance at Los Medanos College" should be enough to illustrate the mutual dependency between the general education model and the governance model.

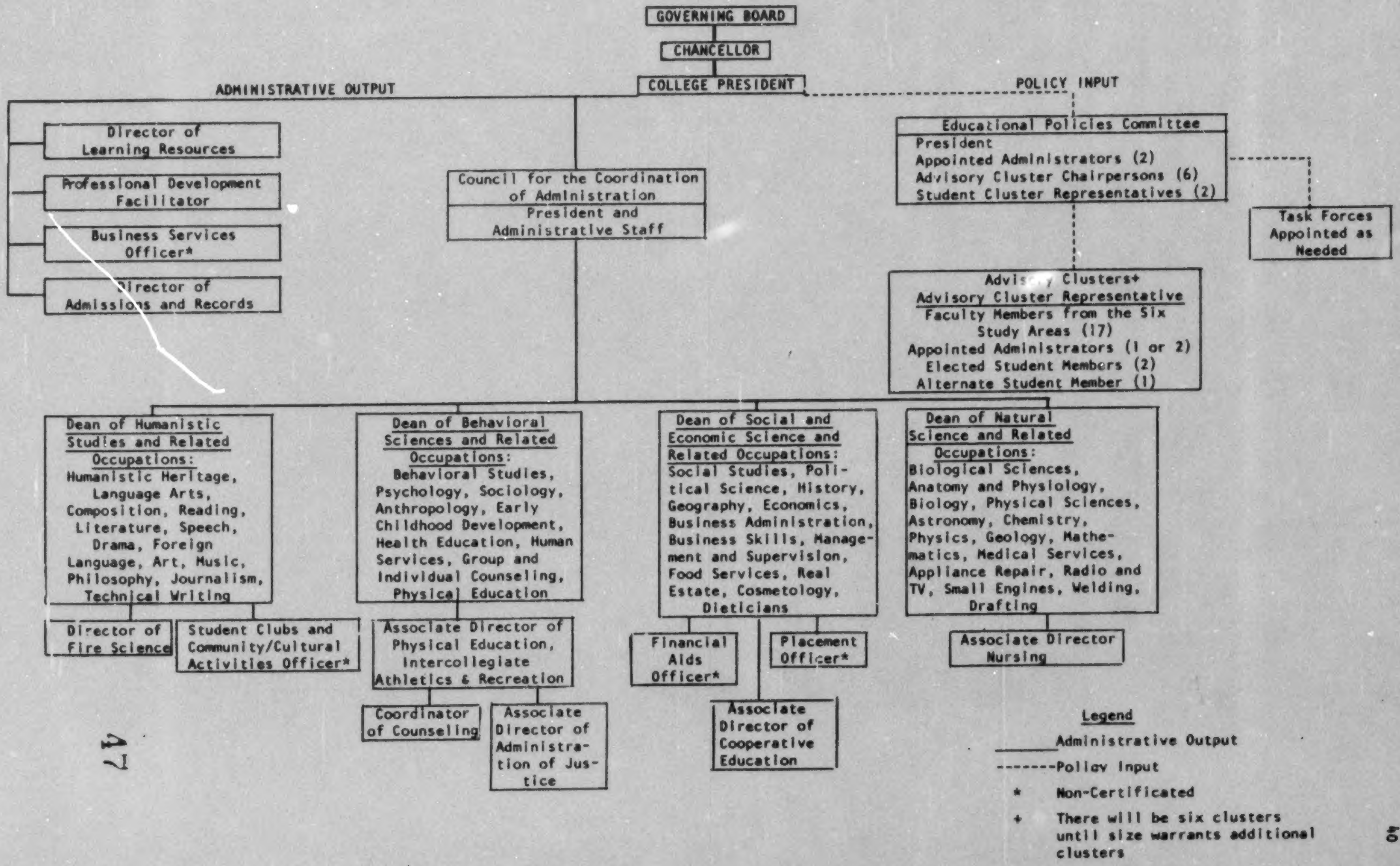
> All members of the academic community will have a voice in the initiation, discussion and final recommendation of policy. The academic community is made up of students, faculty and administrators. All will be involved in the governance of the college, but to different degrees and in different capacities. All three segments will have voices in the formulation of recommendations for policy. However, the executive function will be performed by the administrators.
>
> The formulation of recommendations for policy should be and will be as democratic as circumstances allow. The administration of policy, hopefully fair-minded and even-handed, should not and will not be subject to continuing debate and a striving for consensus. Within the framework of due process and redress of grievance, policy will be carried out by the administrators--and with dispatch.
>
> The organizational structure of Los Medanos College will reflect the interconnection and open-endedness of knowledge and the integrative nature of the learning process. Hence, there will be large and loosely defined study areas but there will be neither departments nor divisions. There will be programs that prepare people for immediate employment, but these will not be dead-end nor separated attitudinally nor geographically from related studies that prepare people for transfer to senior colleges. There will be specially trained counselors and student personnel workers, but since their function is college-wide so also will their concerns be college-wide. There will be courses and other learning experiences offered in the evening, but since time of day is only an incidental factor to learning, there will be no artificial organizational separation between the day and the evening operations.

The thematic and overriding principle is that good communication makes for good governance. It is both disrespectful and a foolish waste not to listen to what involved people have to say. The internal structure of Los Medanos College, as can be seen in the organizational table which follows, will be a system of input and feedback. There will be opportunity for each person to contribute his ideas, at a level of participatory democracy within the advisory cluster and at a level of representative democracy within the Educational Policies Committee. Once policy has been decided, it will be carried out by the administrative officers of the college. The implementation of policy will, of course, be evaluated by those affected by it, and they will have every opportunity to feedback their criticism into the input side of the cycle.

TABLE 5

LOS MEDANOS COLLEGE GOVERNANCE MODEL

The flattened hierarchy, the decentralized student personnel function, the eraced demarcation between transfer education and terminal training, the movement toward integration of the whole collegiate experience, and the short communication line between the president and his staff are all shown graphically in this initial table of organization.


GOVERNING BOARD
CHANCELLOR
COLLEGE PRESIDENT
ADMINISTRATIVE OUTPUT
POLICY INPUT
Director of Learning Resources
Professional Development Facilitator
Business Services Officer*
Director of Admissions and Records
Council for the Coordination of Administration
President and Administrative Staff
Educational Policies Committee
President
Appointed Administrators (2)
Advisory Cluster Chairpersons (6)
Student Cluster Representatives (2)
Task Forces Appointed as Needed
Advisory Clusters+
Advisory Cluster Representative
Faculty Members from the Six Study Areas (17)
Appointed Administrators (1 or 2)
Elected Student Members (2)
Alternate Student Member (1)
Dean of Humanistic Studies and Related Occupations:
Humanistic Heritage, Language Arts, Composition, Reading, Literature, Speech, Drama, Foreign Language, Art, Music, Philosophy, Journalism, Technical Writing
Dean of Behavioral Sciences and Related Occupations:
Behavioral Studies, Psychology, Sociology, Anthropology, Early Childhood Development, Health Education, Human Services, Group and Individual Counseling, Physical Education
Dean of Social and Economic Science and Related Occupations:
Social Studies, Political Science, History, Geography, Economics, Business Administration, Business Skills, Management and Supervision, Food Services, Real Estate, Cosmetology, Dieticians
Dean of Natural Science and Related Occupations:
Biological Sciences, Anatomy and Physiology, Biology, Physical Sciences, Astronomy, Chemistry, Physics, Geology, Mathematics, Medical Services, Appliance Repair, Radio and TV, Small Engines, Welding, Drafting
Director of Fire Science
Student Clubs and Community/Cultural Activities Officer*
Associate Director of Physical Education, Intercollegiate Athletics & Recreation
Coordinator of Counseling
Associate Director of Administration of Justice
Financial Aids Officer*
Placement Officer*
Associate Director of Cooperative Education
Associate Director Nursing
Legend
Administrative Output
Policy Input
* Non-Certificated
+ There will be six clusters until size warrants additional clusters

The model of general education being described in this book represents planned change in a complex social organization. There are certain conditions that must prevail if planned change is to occur with much chance of success. These conditions are: 1) resources, 2) institutional readiness for change, 3) establishment of priorities, 4) strong advocacy, and 5) broad participation.

Happily for Los Medanos College all of these conditions did obtain. The college applied for and received a two-year U.S. Office of Education grant to award honoraria to the participant instructors for their extra hours of planning and preparing. The basic general education schema was developed before the college even hired a teaching staff so that readiness for curricular change could--and did--become a criterion of staff selection. There was philosophic acceptance of the idea that general education was the core of any curriculum--hence the priorities were established. The Superintendent of the District, Karl O. Drexel, and the President-designate, John I. Carhart, were personally convinced that traditional "cafeteria-style" general education was not philosophically valid. They were willing to be strong advocates in the academic and in the wider community for a more solid, less permissive, more structured general education program. And finally, 29 of the original contract teaching staff of 58 were assigned to plan and to teach the general education courses. Even this broad participation grew broader, for those instructors not teaching general education courses became insistent that there be mutual understanding among those engaged in general and special education.

All of this then was the context in which the Los Medanos College model of general education was conceived and developed. Attention will next be turned to sketching the outline and filling in the details of this model.

CHAPTER III

The General Education Model

The first step in the conceptualization of this model was to subject traditional general education programs to a rigorous critique. Many colleges were found to give general education credit for virtually all academic, transfer courses. This was rejected. Some colleges were found to give general education credit for certain technical/vocational courses. Even in 1975 it was seriously proposed to the Board of Governors of the California Community College System that they mandate the acceptance of technical/vocational courses for the state general education requirements. This was fought in 1975 just as it was rejected during the critique stage in 1971. Most colleges were found to operate with a "cafeteria-style" plan of general education. Students were allowed to apply almost any course that had even tenuous connection with the categories of science, social science and humanities toward the general education requirement. This was rejected. Some colleges were found that justified the absence of a pattern of general education courses by the dubious argument that all instructors brought a general education perspective to all courses. This too was rejected. A few colleges were found that espoused the "issues approach," arguing that interdisciplinary issues raised in all courses, or at least key courses, would, when fully explored, have a general education effect on the students. This was not rejected flatly. Yet it was assessed as being unstructured, dependent upon the questionable assumption of the solid general education of each faculty member, lacking in institutional direction, tending to make general education incidental rather than core learning, and, all in all, as leaving too much to chance.

It is easy enough to reject what experience and logic demonstrate to be inadequate. It is much more difficult to come up with the right answers. As a matter of fact, it isn't too easy even to come up with the right questions. Right or wrong, the questions which began to formulate themselves were these:

> What are the areas of knowledge of which all students need basic understanding?
>
> Will an introductory course in any discipline within an area of knowledge cover the fundamental concepts of that whole area?
>
> Are there indeed fundamental concepts which are common to all the disciplines within an area of knowledge?
>
> Is there redundancy of coverage of basic concepts in the various disciplines which fall within an area of knowledge?
>
> Does knowledge of basic concepts allow a student to move easily and quickly from one discipline into any other related discipline within an area of knowledge?
>
> If there is generic content that is common to disciplines within an area of knowledge, can that generic content be extracted and taught?
>
> Is it possible for instructors to first separate generic content from specific discipline content, arrive at reasonable consensus, and then teach each in a coordinated fashion?
>
> If the process is to extract commonalities and to relate disciplines only within a circumscribed area of knowledge, is that not intra-disciplinary, rather than interdisciplinary?
>
> How can the relationship be moved up to an interdisciplinary level?
>
> Can a general education program be planned and taught in such a way as to obviate the need for ethnic studies programs and women's studies programs?
>
> If Los Medanos is to be a "college for survival," can the societal issues which put survival in jeopardy be incorporated into the required general education program?
>
> Can students be taught how to design and carry out their own continuing education within the framework of a mandatory general education program?

How can a general education program be designed to move students first to acceptance of cultural pluralism and from there to beginning development of a world view?

How can the process of planning and executing a general education program be designed to break down the disciplinary barriers between faculty members and to facilitate their constant communication one with another?

Can the general education program be made economically viable? Can it increase the economic viability of the whole College?

Only operational, not definitive, answers to these questions were forthcoming. The answers, tentative as they were, began to shape themselves into an order, into an internal logic, into a meaningful whole, into a model whose plausibility and promise were great enough to warrant an institutionally supported experiment.

The Basic Concept

When Los Medanos College enrolled its first class of students in September 1974, the core of the curriculum offered was six intradisciplinary packages covering these categories of knowledge: behavioral sciences, social sciences, biological sciences, physical sciences, language arts and humanistic studies. Each of these packages was designed to help students interrelate knowledge within a broad area and to help them see the implications this integrated knowledge has for them and for the world in which they strive to survive.

The word "package" is used advisedly, for the total learning experience includes four aspects which are mutually dependent yet distinct. These are: 1) the concepts, principles, generalizations, theories, attitudes and values that are basic and common to the several disciplines that make up the area; 2) the interrelationships of the various disciplines and the societal implications that flow from the knowledge of these disciplines; 3) the substantive content of the specific disciplines; and 4) the plural pursuits of special interests stipulated in a contract between a student, or a small group of students, and the instructor. The first two aspects, commonalities and interrelationships plus societal implications, are centered, but not exclusively, in what came to be labelled the generic course. The second two dimensions, substantive content and plural pursuits, are to be found in what came to be called the discipline courses.

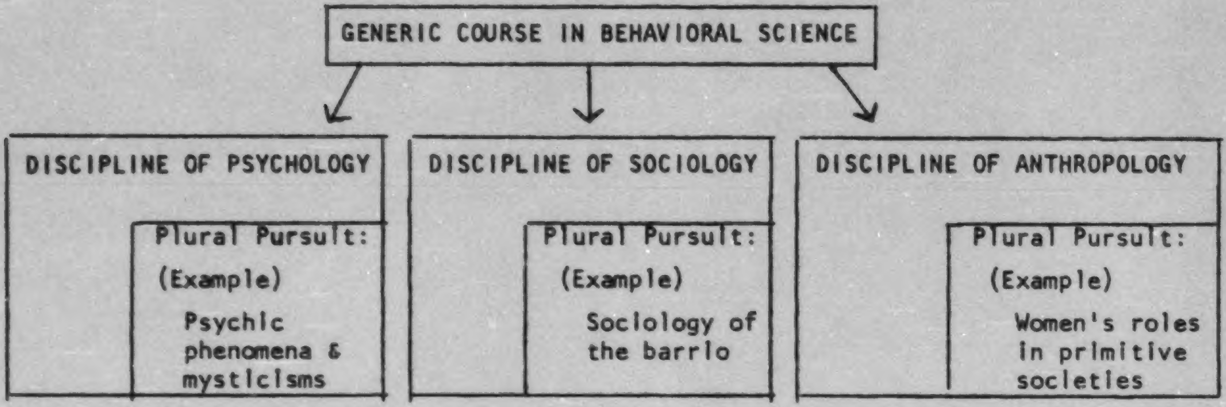
Students are advised that each semester they will be expected to enroll in one, or preferably two, of these general education approaches to interrelated knowledge and to the overriding societal issues of this last quarter of the 20th Century. Students are also advised that to receive the institutional endorsement of either an Associate in Arts or an Associate in Science degree, a graduate will be obliged to have satisfactorily completed all six of these fields of study. Although it is not yet a graduation requirement, students are strongly encouraged to take a capstone course in which the next step is taken from intradisciplinary connecting of related fields to interdisciplinary approaches to the solving of problems that transcend discipline boundaries. This capstone course is called the Interdisciplinary Colloquy, or more popularly, the Sophomore Colloquy.

Elaborations

The basic concept condensed into the above paragraphs sounds complex and may also be obscured by the local jargon that has developed to describe it. It is really quite simple and straightforward. Start with a picture in mind of two closely related yet separable courses. The first course (generic) lays out the concepts, principles, generalizations, theories, attitudes and values which are common to all the subject areas within that field. The second course (discipline) concentrates on the basic subject matter of a traditional field of knowledge, while also providing time for student-designed projects of special interests (plural pursuits). The implications of the knowledge learned for pressing societal issues are drawn from both the generic and the discipline courses. Using the example of the behavioral sciences area, a rough outline would look like that pictured in Table 6.

TABLE 6

INTRADISCIPLINARY SCHEMA FOR GENERAL EDUCATION IN THE BEHAVIORAL SCIENCES


GENERIC COURSE IN BEHAVIORAL SCIENCE
DISCIPLINE OF PSYCHOLOGY
Plural Pursuit:
(Example)
Psychic phenomena & mysticisms
DISCIPLINE OF SOCIOLOGY
Plural Pursuit:
(Example)
Sociology of the barrio
DISCIPLINE OF ANTHROPOLOGY
Plural Pursuit:
(Example)
Women's roles in primitive societies

Thus: 1) There is a generic course that treats the concepts, principles, generalizations, theories, attitudes and values which are common to all behavioral sciences and which have implications for trying to solve societal problems; 2) Students in the generic course must concurrently choose to concentrate on the specific content of psychology or sociology or anthropology; 3) Small groups, or even individual students, contract to pursue in depth a special interest of their own selection and design; 4) The progression in size is from large group, to middle sized group to small group; and 5) The progression in content is from general and abstract to specific and concrete.

But behavioral science is only one of six general education areas. Before going further, perhaps it would be well to see the sub-divisions of all six. This is shown, minus complicating detail, in Table 7.

TABLE 7

DISCIPLINES WITHIN EACH GENERAL EDUCATION AREA

BEHAVIORAL SCIENCES	SOCIAL SCIENCES	BIOLOGICAL SCIENCES
Anthropology	Economics	Anatomy & Physiology
Psychology	Geography	Biology
Sociology	History	Human Biology & Health
	Political Science	Ecology
PHYSICAL SCIENCES	**LANGUAGE ARTS**	**HUMANISTIC STUDIES**
Astronomy	Composition	Art
Chemistry	Reading	Dramatic Art
Physical Science	Speech	General Humanities
Physics		Literature
		Music
		Philosophy

There is complicating detail, however, and that will be the next level of explanation.

The Generic Course

As can be surmised from Tables 6 and 7, there are large generic course sections which feed into much smaller discipline course sections. The usual package is one generic section to three discipline sections. There are no fewer than four and as many as seven or eight such packages offered each semester in all six of the general education areas. These are literally "package deals" since students must have concurrent or prior enrollment in the generic course along with enrollment in one, or possibly several, of the discipline courses.

This last point raises some complications that should be explained. Many students opt to take two related discipline courses the same semester, or perhaps to take one discipline course in the fall semester and then a related discipline course in the spring semester. Obviously, the student should not be obliged to repeat the generic course to which these two discipline courses are tied, hence the phrase "concurrent or prior enrollment in the generic course." Another explanation is in order and then an example will be given: At Los Medanos College all courses that are transferable to senior colleges carry a T after their numbers. Further, courses that meet the criteria of general education requirements also carry a G after their numbers. Since all general education courses are transferable, they all carry the TG designation after their numbers. The generic courses in each of the six areas are designated 1TG. Now for the example: Suppose a student wanted to take a general education course in both psychology and sociology during the same semester. Such a student would be obliged to enroll in one generic section (Behavioral Science 1TG) which would serve as the companion course to both discipline courses (Psychology 10TG and Sociology 15TG). If that same student then wanted to take Anthropology 5TG the following semester, he or she would be allowed to do so without repeating the generic course (Behavioral Science 1TG).

Five of the six generic courses are organized as one-unit courses meeting one hour per week. The exception is Social Science 1TG, Social Order and Institutions, which for reasons unique to the American Institutions Requirement of the State of California meets two hours per week and carries two units.

Each section of the generic courses enrolls from 90 to 120 students. The usual sub-division is three discipline sections with either 30 or 40 students each. The language arts such as reading, composition and speech usually have 30 as the optimal number, as is also true of the science courses that involve laboratories. The discipline sections in the social sciences, the behavioral sciences and the humanistic studies are most often pegged at an enrollment of 40.

Teaching to a group as large as 90 to 120 students is a difficult task, and it is not made easier by the fact that the content is at the most abstract level. It requires the generation of motivation and the stimulation of every sense organ by which students learn. This was anticipated from the beginning; hence the generic courses were planned to exploit every possible audio and visual medium. Instructors plan each class hour with detailed care and are offered the technical assistance of the staff of the Learning Resource Center plus help in generating learning strategies and teaching tactics from the deans and the Professional Development Facilitator.

As the term generic implies, the whole notion of the course is based on the assumption that there are concepts, principles, generalizations, theories, attitudes and values common to all of the disciplines within an area. This seems self evident, for if courses are related, e.g., psychology, sociology and anthropology, they must be related by their commonalities. Experience has demonstrated that with enough searching and discussion, instructors can arrive at reasonable consensus on the basics which are common to all the disciplines within an area of knowledge. It was also found that these commonalities could be extracted, brought clearly into focus, and their application to each of the member disciplines demonstrated. This became the content of the generic courses. This content should be, and is, subjected to periodic review and revision, but so far there is a central core which commands continuing agreement.

The model also calls for the instructor in the generic course to lead students to think seriously about the implications of the knowledge gained for the issues of individual, societal and planet survival. It was thought that in both the generic and the discipline courses, each general education package would be addressed to one, several or all of the issues of population, ecology, nuclear war, alienation, erosion of credibility, racism, sexism and the other evil contents of the future's Pandora's Box. Instructors do try to draw these implications and have done yeoman service in moving students toward cultural pluralism and a world view. However, giving students a structured understanding of the major societal issues has proven to be an ambitious undertaking, of which more will be said in the chapters dealing with evaluation.

The generic course and the discipline courses are interconnected and mutually dependent. Therefore it is absolutely essential that all instructors in every general education area be directly involved in the detailed planning of the generic course. In this way, communication among colleagues is built into the model. The planning of all the generic courses depends on and stimulates communication, which is often carried over into the planning of the discipline courses as well. The way in which the generic course is actually taught has varied from area to area. Some have opted to follow the original plan of having one instructor coordinate the input of his colleagues but to teach the course by himself. Others have experimented with a team of three instructors participating actively in each class hour. The instructional method to which most are turning after almost three semesters of operation is to divide the topics among all instructors in that particular general education area and then let each individual be responsible for presenting his or her topics to all sections of the generic course. The movement has been in this direction because a highly mediated presentation of a topic requires many hours of preparation and a style of presentation unique to an individual. However, both the group planning of content and the group critique after the presentation sustain the original intention of an intradisciplinary approach.

The Discipline Courses

As mentioned in the preceding section and as depicted in Tables 6 and 7, the discipline courses are breakdowns from the generic course. The generic course provides the foundation knowledge for the whole area, and the discipline courses provide options of concentration so that students can elect to move into the channel(s) of their own needs and interests. Further, discipline courses provide options within options since plural pursuits of special interests are built into the structure of all discipline courses that carry the TG designation.

To fit into the general education package, a discipline course must share fundamental commonalities with other disciplines within the same area, must be basic, beginning course in a field of study, must span a broad spectrum of knowledge, and must meet the criterion of presenting content which all people need to know in order to lead self-fulfilling lives and to be responsible, contributing members of the society. Ordinarily, the discipline course in the general education package is the introductory course to that discipline. Certainly, second level courses in a field, e.g., the traditional Economics 1B, cannot be a part of the package. The prerequisite system obviates most of such questions of admissability.

The same reasoning applies to narrower, more advanced courses in any field. The question of their admissability has been made moot since the broader course will be the first course, and once the first course is taken, the general education requirement in that area has already been met.

There are three or more options of discipline courses for each of the six general education areas. The intent has been to keep the number limited and to hold strictly to the criteria of general education. If this were not the policy, there would be bids to define more and more courses as general education disciplines in order to insure sizeable enrollments, and soon there would be a return to "cafeteria-style" general education. One built-in deterrent to such proliferation is the fact that instructors who teach the discipline courses are required to participate in the planning, development and teaching of the generic course. Likewise, the content of every discipline course is subjected to the critique of colleagues teaching related discipline courses.

Most discipline courses carry three units and meet three hours per week throughout the semester. The three language arts courses, reading, composition and speech, meet four hours per week and the laboratory science courses call for five or even up to eight hours per week. When the generic course is coupled to this, then the package amounts to a minimum of four and a maximum of nine hours per week. Since each generic and discipline package always involves more class hours than a traditional course meeting the general education requirement for upper division courses, Los Medanos College has experienced no difficulty in articulating these non-traditional packages with the colleges and universities to which students transfer.

One of the reasons that discipline-course instructors are required also to teach the corresponding generic course is that the content of the discipline courses is related--where possible even synchronized--to the concepts, principles, generalizations, theories, attitudes and values taught in the generic course. This makes communication between the instructor in the generic section and the instructors in the discipline courses a constant two-way flow, for each has to know what the others are doing to be able to build upon and reinforce the learning that is taking place in the others' sphere. To generalize upon this, both intra-disciplinary and interdisciplinary teaching require that faculty members engage in a neverending dialogue. Realizing this, the two-way flow of communication was built into the structure of this model wherever possible.

The content of the discipline courses should also be related to the societal implications that are introduced in the generic courses. It is difficult, perhaps pointless, for the instructor in the generic course to talk about the implications of the knowledge being presented for societal issues if his colleagues in the discipline courses fail to pick up the generalizations and reinforce them with the specific content of their courses There is no doubt that this sort of forward pass from generic to discipline course is occuring as the content relates to racism, sexism and certain other societal issues. Here also, the movement from cultural pluralism to a world view has begun. More doubtful, and this will be treated in the chapters on evaluation, is whether the students are being taught enough of a structured understanding of the whole array of societal issues for them to relate the knowledge they are learning in the generic and discipline courses to possible solutions of these problems.

Plural Pursuits

If students are encouraged to make beginning efforts at autonomy in designing their own educations, it is reasonable to expect that they will come up with unique ways to get from where they are to where they want to be. They will puruse many different goals down many different paths; hence the term "plural pursuits." Plural pursuits is the contractual part of the discipline course which provides a wide range of options and which gives students an opportunity to experiment in designing their own educations. In other words, plural pursuits provides freedom for students to follow their own interests but within the boundaries of strong structure.

For some students, plural pursuits provides an opportunity to go deeper into an aspect of ethnic perspective or women's perspective which has been introduced in the generic or discipline course, e.g., women's liberation as seen by Black women. For some students, plural pursuits becomes a means of exploring how the knowledge in the discipline course relates to the career which they are planning to enter, e.g., physical principles involved in welding. For some students, plural pursuits encourages depth investigation of a societal issue that is directly connected to the subject matter of the discipline course, e.g., should there be limits to genetic research? For still other students, plural pursuits allows the study of any subject which they and the instructor can agree is intrinsically valuable and fits within the objectives of the course, e.g., grafitti as mural painting and public art. It does not take much imagination to envision the creative possibilities that would offer themselves in each of the discipline courses within the six general education areas. Here are some off-the-cuff examples of topics drawn from various disciplines in three of these areas. Obviously they would need paring and refining before they would become feasible plural pursuits:

Behavioral Sciences

- LaRaza as a perceptual frame
- The psychological factors in over-population
- Variant life styles
- The Black perspective in psychology
- Sex roles in Mexico
- Man's nature and nationalism
- The Yipples: politics of the absurd
- The paradox of freedom and order
- Sociology of the barrio
- Statistics in behavioral sciences
- Rationalism and mysticism
- Macho males and castrating females

Biological Sciences

- Racial genetics
- Ecological field study
- The ethics of science
- Extra-terrestial life
- Malthus and the pill
- The interface of chemistry and biology
- Abortion and mercy killing
- The frontiers of medicine
- Ecology of the San Joaquin Delta
- The population-productivity race
- Biofeedback
- The physiology of meditation

Humanistic Studies

- Black poets and playwrights
- Pocho as a creative language
- Afro-American films
- Mathematics in music and art
- Grammar as a form of logic
- The roots of jazz
- Art as an international language
- Themes in current literature
- Third world art movements
- The movies as social criticism
- Mexican muralists
- Women photographers

As noted before, the progression in all of the general education packages is from large group to small group as well as from abstract and general to concrete and specific. The 90 or 120 students in the generic course sub-divide into 30 or 40 students in the discipline courses, which in turn sub-divide into groups of 10 for plural pursuits and, more often than not, reduce to the educational ultimate of one student talking to one instructor. One hour of the three or four hours in the typical discipline course is given over to plural pursuits. The usual procedure is for the discipline instructor to meet with all students during the plural-pursuits hour for the first couple of weeks of the semester. In these sessions the rationale for plural pursuits is explained and students are challenged to start thinking of a topic of special interest to them. After about the third week the class is divided into broad interest areas and a schedule is set up which has one third of the class coming every third week on a rotational basis for this one-hour portion of the discipline course. The other two thirds are instructed to work in the Learning Resource Center or on their own on their plural pursuit projects. Out of these small group sessions and/or individual sessions comes a written contract signed by student and instructor and stipulating the plural pursuit goals and the means to be used in achieving these goals. From that point on the instructor becomes a resource person, a critic, a gadfly and an evaluator. Since the plural pursuit is roughly a third of the discipline course, about one third of the final grade in the discipline course is dependent upon it.

All that has been described so far is intradisciplinary; it is a model for the relating of knowledge within each area of six arbitrarily defined areas. This in itself is an ambitious undertaking, but it need not be assumed that to ascend from intradisciplinary to interdisciplinary would call for an equally complex and ambitious program. Actually, only one more step is needed: the pulling together of knowledge toward the solving of problems whose dimensions are bigger than any one area of knowledge. Before describing one way in which this synthesis might be made, an outlined review of the much larger intradisciplinary portion of this model is offered in Table 8.

TABLE 8

GENERAL EDUCATION AT LOS MEDANOS COLLEGE: AN INTRADISCIPLINARY MODEL

Categories of Knowledge:	BEHAVIORAL SCIENCES	SOCIAL SCIENCES	BIOLOGICAL SCIENCES	PHYSICAL SCIENCES	LANGUAGE ARTS	HUMANISTIC STUDIES
Generic Courses:	The Nature of People in Society	Social Order and Institutions	Drama of the Biosphere	Explorations of the Physical World	Language and Thought	The Creative Process

Explanatory Notes:

1. Five of these six generic courses meet one hour per week and carry one unit of credit. The Social Science course meets two hours and carries two units.
2. Prior or concurrent enrollment in each generic course is prerequisite to any of the discipline courses falling within the same category of knowledge.
3. The content of these courses includes the fundamental concepts, principles, generalizations, theories, attitudes and values that are common to the respective disciplines of each. The interrelationships of these disciplines are made explicit and, more important, an attempt is made to bring into sharp focus the implications of the knowledge gained to the issues of individual, societal and planet survival.
4. A serious effort is made to bring ethnic and women's perspectives into all of these courses and to assist the student to move first to cultural pluralism and from there to a world view.
5. Each generic course is assigned the number 1 and carries the letters T (transfer) and G (general education); e.g., Behavioral Sciences 1TG, "The Nature of People in Society."

Discipline Courses:						
	Anthropology Psychology Sociology	Economics Geography History Political Science	Anatomy & Physiology Biology Human Biology & Health Ecology	Astronomy Chemistry Physical Science Physics	Composition Reading Speech	Art Drama General Humanities Literature Music Philosophy

Explanatory Notes:

1. Most of these discipline courses meet three or four hours per week and carry three units of credit. The lab sciences carry more hours and units.
2. Prior or concurrent enrollment in the generic course is prerequisite to the respective discipline courses.
3. The content of these courses is not unlike that traditionally found in the courses of the same name. The instructors try to pick up the concepts and principles from the generic course and make them specific to the discipline. Similarly, the content is used to stimulate the students to look at the individual and societal implications of the knowledge they are learning.
4. One hour of the three per week is devoted to plural pursuits of special interests; i.e., the instructor helps smaller groups of students design their own learning and becomes a manager/director as well as a facilitator of the students learning. This offers exciting possibilities, for it allows for wide diversity without course proliferation. It brings the flavor and spice of ethnic and women's perspectives to any category of knowledge. It exploits topical interests without either the delays or rigidities of developing them as formal courses.
5. Again, an effort is made to bring ethnic and women's perspectives to all of these courses and to help students accept and honor cultural pluralism as a step toward development of a world view.
6. All of these courses also carry the letters T (transfer) and G (general education) next to their assigned number; e.g., Social Science 30TG, "History: The World From a Non-Western Perspective."

An Interdisciplinary Colloquy

The idea of a sophomore colloquy predated the formulation of the rest of this general education model. The notion was based on the need of more advanced students to bring together all that they had learned in other courses and apply it in some meaningful fashion. Although oversimplified, it is still essentially true that students can't be interdisciplinary in their application of knowledge unless they first have some knowledge from different disciplines to interrelate. For that matter, neither can instructors, for even though most instructors know the basics in fields of knowledge other than their own, they have not been educated as generalists nor do they see themselves as "renaissance men." For these reasons, there was initial reluctance to make the interdisciplinary colloquy a part of the general education graduation requirements or to commit other than volunteers to teach it. It is an experiment that has taken theoretical shape but has not yet been carried out.

The plan is to invite students who have completed two or more of the general education packages to participate in a class where knowledge from diverse disciplines will be brought to bear on some large societal issue. This colloquy will build upon the constant investigation into societal implications that should characterize all the general education courses, and it is envisioned as a continuing and deepening dialogue on the societal issues, their ethical dimensions and the options for social change. This Interdisciplinary Colloquy is designed to bridge the disciplines, so that the teaching teams would, for example, pair instructors from behavioral sciences with instructors from biological sciences on the issue of population, or instructors from social sciences with instructors from the humanistic studies on the issue of planning a post-industrial society. This kind of interdisciplinary cross-over would also describe the student mix. The goal is to get instructors and students of varying interests and special knowledge to band together to creatively attack societal problems that cut across the whole spectrum of disciplines and, being international in scope and effect, require a world view on the part of those dauntless enough to face them.

A first attempt will be made in the spring semester, 1976, using one instructor from biology, one from philosophy and one with equal preparation in both psychology and physics. The class will zero in on the question of the inevitability of progress and will use as its vehicle Jacob Bronowski's "The Ascent of Man." It will be a three-hour, three-unit course with one team-taught large-group session and two seminar sessions per week in which the three small groups can have an instructor-student dialogue. Whether this format will become the standard for the Interdisciplinary Colloquy and whether this top of the general education pyramid will become a graduation requirement remain as policy questions to be submitted for future consideration by the Advisory Clusters. (See Table 5, Los Medanos College Governance Model, page 40.)

Student Requirements

For the institutional endorsement of an Associate in Arts or Associate in Science degree, students at Los Medanos College are required to complete the generic and a discipline course in each of the six general education areas. In the area of social science this comes to 5 units and in all other areas 4 units, making a total of 25 units. In addition, students are presently required by district policy to take 2 units of physical education activity, bringing the total graduation requirements to 27 of the 60 units minimum for the AA or AS degrees. If a 3-unit Interdisciplinary Colloquy were added to this, graduates would still have one half of all course work (30 units) as completely free electives.

Community colleges in California have the right to stipulate on the student's transcript those courses which are at the baccalaureate level. They also have the right to stipulate for students transferring to the California State University and College System that their 40-unit general education pattern has been met if, indeed, it has. Suffice it to say here that the 25 units in the Los Medanos College general education program do all contribute toward this CSUC requirement of 32 units in the four areas of humanities, basic subjects, natural sciences and social sciences and/or toward the eight elective units. This detail, local to California, is given to demonstrate that for the transfer student--and at Los Medanos College all students are potentially transfer students--a 30-unit general education program is all plus and no minus. The student who at any point decides to limit his or her education to the two-year degree would still be able to take at least 33 units in a major or field of career training. Actually, the 33 units is minimal, for it is hard to conceive of a major or career field where one or several of the general education courses would not also be required for the major, e.g., anatomy and physiology for nursing or psychology for police science or physical science for radio and television or economics for real estate and so on and so on. If such students later change their minds and decide to pursue upper-division education, they will have already met the transfer requirements in general education, and hence be well on their way.

Instructor Load and Schedule

Instructor load in a college is a function of class hours, preparation and number of students. The typical teaching load at Los Medanos College is fifteen lecture hours. It is the policy of the college to keep the number of preparations to a minimum. Class size varies from an opening minimum of 20 to a maximum equal to the number of seats in the largest lecture hall (120). The financial constraints of the district require the weekly student contact hours (WSCH) to average about 540. The college policy against proliferation of courses, particularly general education courses, helps to make for minimum preparations and for a viable WSCH total. In most cases teaching general education courses assures minimum preparations although prodigious effort is required to prepare properly, particularly for the generic courses.

The instructor load in terms of class hours, preparations and number of students as well as the economics of weekly student contact hours can be illustrated with the hypothetical example, shown in Table 9, of an instructor who teaches one generic section in social science and two sections each of two different discipline courses in history.

TABLE 9

SAMPLE INSTRUCTOR LOAD IN SOCIAL SCIENCE

Course Number	Section Number	Course Name	Units	Hours	Maximum Enrollment	WSCH
SOCSC 1TG	2	Social Order & Institutions	2	2	120	240
SOCSC 30TG	1	History: The World From A Non-Western Perspective	3	3	40	120
SOCSC 30TG	2	History: The World From A Non-Western Perspective	3	3	40	120
SOCSC 32TG	2	History: United States	3	3	40	120
SOCSC 32TG	4	History: United States	3	3	40	120
		TOTALS		14		720

The instructor in this example would have three preparations, would teach 14 class hours per week and would generate 720 weekly student contact hours. In actual experience these hypothetical maximums do not usually hold, so the WSCH only approximates the total given. Even so, experience has shown that general education instructors carry more than their fair share of the load and in doing so help to sustain important but low-enrollment courses in specialty subjects.

A Recapitulation

The outline of the general education program at Los Medanos College has been sketched in this chapter. The progression is from the generic course to the discipline course to plural pursuits in each of the six areas of knowledge: behavioral sciences, social sciences, biological sciences, physical sciences, language arts and humanistic studies. There are therefore six generic courses, each coupled to one of three or four discipline courses in each of the broad areas. The generic courses attempt to extract the concepts, principles, generalizations, theories, attitudes and values which are common to all the disciplines within that area. They also attempt to interrelate the disciplines within each category of knowledge and, where possible, to draw the implications that each field has for the societal threats to survival, e.g., population, nuclear war, national sovereignty, environmental pollution, alienation, etc.

The discipline courses are traditional in that they cover the essential and specific knowledge of the various disciplines yet are also innovative in that they are heavily oriented toward individual and societal implications and have built into them a feature called plural pursuits. This forces students to begin to design their own educations, so that one hour per week of each discipline course is devoted to planning and carrying out individual or small-group contracts to do projects, investigations, field work, surveys, specialized study, etc.

The goals of this model are to help students develop an interrelated view of the world as seen through the humanities, the language arts, the biological and physical sciences and the social and behavioral sciences; to give students a broad, integrated approach to contemporary world problems; to help students become more understanding and accepting of cultural diversities and to begin developing a world view. The intent is to bring the world in all of its complexity to the minds of the students and to help them see how they can educate themselves to cope with its threats and to enjoy its pleasures. Judgment on whether these goals and intents are feasible first requires a more detailed picture of the major elements of the model and then a report from outside evaluators on its planning and carrying out. Providing this basis for judgment will occupy the remaining chapters of the book.

CHAPTER IV

Generic and Discipline Courses

The rudiments of the model described in the preceding chapter were sketched in a position paper in early 1972. More elaborated and refined editions of this paper were written and used as points of departure in the planning process. Applicants for teaching positions in the general education curriculum were given copies of this developing position paper and were asked to respond with critical reactions and with statements on their views of general education. In this way the original cadre of staff members who were chosen had a beginning hand in developing the general education model and registered their pledge to general education as a concept at least, if not to this particular model of general education.

Throughout the academic year 1973-1974 instructors who were billed to teach in the general education areas met for several hours each week for intensive planning. At first these were general meetings devoted to explication of various aspects of the developing model. Once staff members became familiar with the overall plan, the general meetings broke into area meetings and became task oriented. The first task was to try to separate the generic from the more specific content of the disciplines.

On occasion, as a matter of fact on frequent occasion, the instructors in each area would reconverge into meetings of the entire general education faculty. Sometimes this was necessary to regain a common focus on the whole enterprise. Sometimes the general meetings were used to allow the Professional Development Facilitator to share his insights on the planning process itself, to suggest widely applicable learning strategies and to pull from the group ideas on related teaching tactics. Sometimes the instructors reconvened in general meetings to hear consultants on ethnic perspectives, on women's perspectives, on cultural pluralism and world view and on how to interject all of these into teaching. Periodically during the planning year of 1973-1974 and the first operational year of 1974-1975, one or two-day faculty retreats were held for summing up, stock-taking, reaffirmation of commitment and energizing for new stages of planning. These retreats were restricted to the general education staff until it became apparent that the non-general education staff wanted both to know what was going on and to have some say in it.

The area meetings were chaired by their respective deans (behavioral sciences, social sciences, natural sciences, language arts and humanistic studies), and two of these administrative areas were sub-divided further into their constituent subject areas, biological and physical sciences in the one case and language arts and humanistic studies in the other case. Each group began with the task of extracting and agreeing upon the concepts common to the member disciplines. The process was one of brainstorming and noting on the chalkboard or on big strips of butcher paper every concept that came to each team member's mind. This resulted in literally "walls full" of concepts. These then had to be pared down, rephrased, combined or telescoped, articulated and put into some kind of logical order.

All of this meant debate, and forced instructors from different, if related, disciplines to talk to each other about serious professional concerns. Each had to defend his or her ideas and to expose both knowledge and ignorance to colleagues. Instructors could not escape from involvement since all knew that the generic courses would to some degree determine the contents of their discipline courses.

Further, each knew that colleagues would be sitting in during the presentation of his or her portion of the generic course. It was originally thought that all the generic courses would also be team taught. In fact, this only occasionally occurred in the sense of three or four instructors interacting together within any one class hour. Instead, the team members taught sequentially, one taking one topic and another taking another topic. However, if not team taught, all generic courses were--and continue to be--team planned. Indeed, this general education model could not have been developed without team planning.

Developing the Generic Courses

The instructors in science appeared to extract common concepts with greater facility than instructors in other areas. Perhaps science by its very nature is more precisely structured and more definite. The content seems to be more conceptual--it is made up of concepts that can be reduced to names, e.g., biogenesis or energy. Even in science, however, the original notion of common concepts got expanded to include the principles that follow from these concepts.

The subject areas that found the articulation of generic ideas the most difficult were language arts and humanistic studies. Perhaps instructors in these fields have not been trained to think along such highly structured lines. Certainly, reading, composition and speech instructors knew they were all dealing with modes of language, but they found it difficult to come up with namable concepts that were common to all three language skills. Discussion and interaction soon made it evident that they were often dealing with affective aspects, such as common attitudes, and before this group was finished they had broadened the common elements to include concepts, generalizations, principles, attitudes and values.

During the planning year the instructors in humanistic studies were all from the visual and performing arts. They knew they had to accommodate philosophy and literature in their generic course and did their best to do so. Considering the fact that such artists are not usually well prepared in philosophy and literature, this original planning team was gratified to learn that their late-coming philosophy and literature colleagues could tie in with minimum disruption to the common concepts which these instructors in the visual arts, music and drama had extracted. Eventually they, like their colleagues in the sciences, found that they could arrive at namable concepts, e.g., form, movement, composition, rhythm. But by the second year they, like their colleagues in language arts and humanistic studies, had expanded the commonalities beyond pure concepts and into common affective aspects.

Neither the instructors in the behavioral sciences nor those in the social sciences had serious difficulty in arriving at common concepts. In both cases they grouped these concepts into modules which built toward higher levels of abstraction, which then appeared as topical units. An example drawn from the social sciences may make this clear. The concepts liberal democracy, pluralism, totalitarianism and fascism were tied together in a unit labelled "Increasing Role of Government and Problems Associated With It." Where instructors in both of these areas experienced difficulty was in limiting themselves to one general education (TG) course per discipline. Whereas all of literature within humanistic studies was telescoped into Humanistic Studies 30TG, The Nature of Literature, the historians could not bring themselves to condense the story of humanity into such a course as "History From a World Perspective." Neither could the psychologists settle on one course such as "Human Behavior," nor could the sociologists settle on one course such as "The Dynamics of Social Groups and Institutions." In both the social sciences and the behavioral sciences there did turn out to be some proliferation of general education courses. More will be said on this in Chapter X.

Illustration of Generic Course Content

The criteria used in selecting subject matter for the generic courses were: 1) each concept, (principle, generalization, theory, attitude and value) to be taught must be a fundamental one and, 2) the importance of this concept must be common to all of the discipline courses that derive from the generic course. It would be difficult to prove that the truly essential concepts were always selected and that all experts would agree that they are common to the disciplines within an area. The illustrations that follow simply give those concepts agreed upon by Los Medanos College instructors.

The first illustration given in Table 10 lays out the concepts and principles first presented in Physical Science 1TG, Exploration of the Physical World, and then picked up and treated in the discipline courses in astronomy, in chemistry, in physics, and in general physical science.

TABLE 10

CONCEPTS AND PRINCIPLES TAUGHT IN PHYSICAL SCIENCE ITG, EXPLORATIONS OF THE PHYSICAL WORLD

WEEK	
1st	Orientation
2nd and 3rd	CONCEPT: Matter and Its Measurement PRINCIPLES: 1. Matter can be interpreted through the perceptions of characteristics and properties of a structural unit. 2. Once perceived, these properties can be classified. 3. Regular patterns of relationships within and between structural units can be developed.
4th, 5th, and 6th	CONCEPT: Structure of Matter PRINCIPLES: 1. Patterns of structure can be identified through the process of perception. 2. Once identified, structure can be perceived by the interpretation of patterns and regularities.
7th and 8th	CONCEPT: Forces PRINCIPLES: 1. Interaction and communication exist between structural units, and these processes are called forces of interaction. 2. All matter experiences attraction or repulsion with other material objects. 3. A "force law" exists when these forces can be characterized.
9th and 10th	CONCEPT: Matter in Motion PRINCIPLES: 1. The state of activity or movement of material objects can be specified or identified. 2. Systematic observations reveal the existence of patterns of motion of material objects. 3. Interpretation of these patterns reveals a force of interaction which gives rise to patterns of motion. 4. From these patterns, models can be structured which explains matter in motion. 5. As a result of matter in motion, the concept of time is perceived.
11th, 12th, and 13th	CONCEPT: Energy PRINCIPLES: 1. All matter contains an abstract characteristic which allows "vital forces" to be associated with and transferred to other matter. 2. This force is known as energy and is expressed only in terms of other observed characteristics.
14th, 15th, and 16th	CONCEPT: Transformation PRINCIPLES: 1. Physical laws and forces operate to change the state of matter in the universe. 2. Energy is constantly being changed from one form to another. 3. An energy system--atom, molecule, organism--undergoes chang and evolves over time. 4. Changes in the characteristics of space and time are identified as motion. 5. Changes in the matter itself and the interconversion of the energy characteristics are called transformation. 6. The understanding of transformation provides a unifying foundation which is a basis for interpreting processes which occur in the physical world.

Of course a much more detailed plan than a listing of concepts and principles is needed for teaching any one unit. One concept agreed upon by the language arts instructors was that of perception, or to put it in its unit title, "The Influence of Perception on Language." The outline of the lesson plan given to the students to help them follow the highly mediated presentation is reproduced in Table 11. Equivalent outlines exist for each of the 15 units presented in Language Arts ITG, Language and Thought.

TABLE 11

OUTLINE OF THE UNIT ON PERCEPTION TAUGHT IN
LANGUAGE ARTS ITG, LANGUAGE AND THOUGHT

UNIT: The Influence of Perception on Language

CONCEPT: Perception

GENERALIZATIONS:

1. Perception is the meaning that we give to the sensations which our sense organs bring to us. Perception includes our way of seeing, hearing, sensing and experiencing.
2. Our perceptions are the determinants of our behavior and control our reactions to the environment in which we live.
3. The boundaries of our language also establish the boundaries of our perceptions.
4. Language is the means by which we transmit our perceptions to others.
5. Language is largely determined by an individual's cultural environment. Thus, we express our perceptions in the language of our culture.
6. Perceiving the reality of our experiences involves three main factors:
   A. The external world of people, objects and happenings.
   B. The internal view we have of the world around us.
   C. Words and other symbols by which we talk (think) to ourselves and to others.
7. We do not have to be perpetually enslaved by the adverse effects of traditional perceptions: It is possible to gain insight into the reasons that cause us to act and react, and so to make ourselves available to new modes of perception.

GOAL: To encourage the student to look inward and grasp the meaning of his or her own perceptions so that he/she will be more considerate and alert to the perceptions of others.

How this particular unit on perception fits into both the generic course and into one of the three discipline courses can be seen by examining Appendix 1, Course Outline for Language Arts 1TG, Language and Thought and Appendix 2, Course Outline for Language Arts 15TG, College Composition. Both of these appendices illustrate the format used in all course outlines.

By the end of the first semester of operation of the general education model, the president of the college, John I. Carhart, became intrigued with the possibility of reinforcing learning by scheduling related concepts that might appear in the various generic courses, perception perhaps, at approximately the same time. To test this possibility for future use, and to get a bird's-eye view of all concepts being taught in the six generic courses, he prepared a table showing the calendar of presentation and the unit titles (concepts) for all generic courses. This is reproduced as Table 12. Re-thinking and refinements have occurred since that time, but this does illustrate the totality of the generic courses.

T A B L E 1 2

CALENDAR OF PRESENTATION AND UNIT TITLES FOR ALL GENERIC COURSES, FALL 1974

SEMESTER WEEK	BEHAVIORAL SCIENCES	BIOLOGICAL SCIENCES	PHYSICAL SCIENCES	SOCIAL SCIENCES	LANGUAGE ARTS	HUMANITIES
1	← ORIENTATION	EXPLANATION		DIRECTIONS	GRADING STANDARDS →	
2	Human Life Cycle	Perception	Matter & its Measurement	Traditional Societies	Listening for Meaning	Combination of Raw Data and Artist's Perception
3	Cultural Diversity of Human Life Cycle	Biogenesis	Matter & its Measurement	Traditional Societies	Perception and Language	Art Limited by Tradition and Awareness
4	Controls on Human Behavior	Biogenesis	Structure of Matter	Traditional Societies	The Symbol System of Communication	Communication Artist-Audience
5	Review - Quiz	Energy	Structure of Matter	Emergence of the Market Society	Methods of Communication	Composition - Product of Creative Process
6	Human Social System	Information Process	Structure of Matter	Emergence of the Market Society	Psychological Development of Language Within the Child	Perspective - Frame of Reference
7	Political and Economic Control	Information Process	Forces	Impact of the Market Society	Relativity of Language and the Process of Change	Selection - Continuous Process in Creating
8	Modern Society	Structure and Function	Review	Impact of the Market Society	Language and Culture	Form - Defined by Creator
9	Review - Quiz	Structure and Function	Forces	Impact of the Market Society	Logical Organization of Ideas	Technical Skill Defines Artist's Mastery of Craft
10	Social Organization's Strategies of Power and Privilege	Development	Matter in Motion	Impact of the Market Society	Definition, Classification and Generalization	Interpretation - Expressive Element Defining Form
11	Social Process	Behavior - Communication	Matter in Motion	Increasing Role of Government and Associated Problems	Reports, Inference and Value Judgements	Emotion - Expressive Element of Art
12	Social Disorganition	Behavior - Communication	Energy	Increasing Role of Government and Associated Problems	Review	Control - Manipulation of Spontaneous Impulse through Media
13	Review - Quiz	Homeostasis	Energy	Increasing Role of Government and Associated Problems	Pervasive Influence of Mass Communition	Audience - Skills to Perceive Art or Thought
14	Developing the Self Concept	Stress	Energy	International Considerations	Corruption of the Integrity of Language	Good Art Has Durability
15	Power and Privilege Affecting Individual Behavior	Interaction	Transformation	International Considerations	Language of Suppression	Art Can Induce New Aesthetic Responses in the Audience
16	Change Agents	Genetic Destiny	Transformation	Possible Futures	Language as an Art Form	Combine Visual Arts, Music
17	Identifying Immediate and Long-Range Goals	Evolution	Transformation	Possible Futures	Recapitulation and Review	Drama, Philosophy, and Literature
18	Final Exam	Final Exam	Final Exam	Final Exam	Final Exam	To Produce a Work of Art

JC:th
12/30/75

Teaching the Generic Courses

The assignment to teach concentrated concepts in a one hour a week course to a class of 90 to 120 students is a difficult one. It would be difficult for very experienced teachers working with highly motivated students with rich academic backgrounds. At Los Medanos College it is being done by some teachers who are right out of the Kellogg Program for the Induction of Instructors (see Chapter II, pages 36 and 37), some who are in their first few years of teaching, and by a few who are truly experienced old hands. This abstracted material is being presented to a crosscut of the Los Medanos College student population, only a few of whom could be described as "highly motivated students with rich academic backgrounds."

From the beginning, the learning strategy was to make the content as palatable and as memorable as possible by presenting it in a highly mediated fashion, using every kind of visual and auditory aid to carry the message. Instructors were expected to vivify their lectures and to illustrate each point with slides or filmstrips or motion pictures or video clips or projected outlines or charts or graphs and to reinforce their voices with the voices of outside authorities and with the emotional catalyst of music. Instructors have indeed done this. Many have worked closely with the Professional Development Facilitator and the Learning Resources Director to plan scenerios for every presentation. They have learned to use the photographer, graphic artist and other technicians on the Learning Resource Center staff. They have demonstrated that highly mediated teaching can be done. Whether all this makes for effective teaching will take longer than one or two years to determine, and opening statements on evaluation will be reserved for later chapters.

The original intent was for each generic course to be team planned but for each section to be taught in its entirety by a different member of the planning team, or in some cases, taught as a team venture. This original intent is still carried out in some areas. Others, particularly language arts and humanistic studies, found the preparation so overwhelming that they convinced their dean to let all members of the planning team divide the units among themselves. Each then, was responsible for preparing three or four fully mediated lectures, which they presented to all sections of their generic course. This system depends less on the richness of the individual instructor's own general education and has the plus value of letting each cover that material which he or she knows best. It has the minus values of decreasing the likelihood of each instructor's dealing adequately with all generic material in his or her discipline classes and lets instructors off the institutional hook of furthering their own general educations.

Since other colleges do not teach anything even resembling generic courses, there are no generic course textbooks on the market. It is apparent that students do need an introduction to what will be covered in the generic class hour. Further, mediated lectures cannot offer too many points or much elaboration and detail, which makes some coverage by pre-reading more necessary. Obviously, the best answer to this problem would be for instructors to write their own 5 to 10-page essays weaving in all they want covered that they cannot touch upon within the 50-minute lecture hour. Time constraints and the usual reluctance to reveal one's self on the written page have blocked this "best answer." No group, to date, has undertaken to write its own text. Instead, the reading has been largely a collection of hand-outs, or collected hand-outs in the form of a syllabus, or a bibliography of textual and Learning Resource Center materials. In courses with such unique content it is difficult to find printed material that is right on target. Of course in some areas this is less of a problem than in others, and some instructors have had better luck, or more diligence, in their search for reading material that will directly reinforce what they are going to say and do in their generic sessions.

Most instructors have concluded that quizzes are necessary at each generic session, or at least periodically. They serve as an incidental but convenient way of checking on absent students and of reducing absenteeism. If properly constructed, they are also an extrinsic motivator for doing the assigned preparatory reading. However, the success of properly constructing quizzes has been mixed. The encroachment on the class hour by the time taken to complete the quiz has pushed instructors to prepare objective-style tests that can be done very quickly. This puts a premium on true-false and multiple-choice questions,which are often either too easy or, if made to test for more difficult subtleties, often too ambiguous. This problem can and must be solved, since students soon devalue any course that is seemingly not serious enough to challenge their best efforts. Also, it is fast becoming apparent that students at Los Medanos College need constant experience in writing, so at least a small block of time in each generic class hour is going to be set aside for writing a few sentences or a short paragraph that will serve as part of the student evaluation. One of the language arts instructors, Ross MacDonald, has devised a highly structured reading guide and reaction sheet which could be used as a learning tool in the preparatory reading assignment, then be turned in to inform the instructor of who was present and, more important, whether the students got everything that they should have from the reading. This Study Guide for Reading Assignment is presented as Appendix 3.

The Discipline Courses

The discipline courses carry more of the stamp of the individual instructor than the generic courses. However, there is still much team planning and team critiqueing since it is necessary to make the discipline courses mesh with their respective generic courses. When several instructors teach different sections of the same discipline course, it is college operating procedure for the course outline to be prepared as a common task by all instructors who will teach it. In this way the goals, the objectives, the content and the learning materials to be used are arrived at by argument to consensus, thereby putting constraints on instructors with a penchant for wandering too far into the thickets of academic individualism. This check and balance system is not so automatic when the discipline course is only taught by one instructor. It becomes more incumbent on the dean of the area to serve as the colleague in planning and as the checker to see that the discipline course is coordinated with the generic course.

To a large extent the Professional Development Facilitator has been the teachers' teacher throughout this whole enterprise. One reason is that he is the resident expert on teaching, and another is that in his non-evaluative role he is easier to approach than the deans with the admission, "I don't really know how to make a course outline" or "I need some help in developing this unit" or "I don't know how best to get this idea across." Most of the group meetings of the general education instructors were planned and led by the Professional Development Facilitator, Dr. Chester Case. It was he who laid out the format for course outlines to be used in structuring the generic and discipline courses--and later, all Los Medanos College courses. His position paper, "A Model Format and Definition of the Course Outline," is reproduced as Appendix 4.

Problems Associated With Planning The Discipline Courses

It was never expected that the discipline courses would be completely synchronized with their respective generic courses. It was argued that to insist such synchronization would often violate the internal logic of the discipline courses. What was expected was a reasonable coordination of the discipline content with the generic content. On the occasions when the two were disharmonious, then discipline instructors were expected to speak briefly on the general relevance of the current generic content to the discipline course and to indicate specific return to it at a later point.

The other side of the argument is that there is no one internal discipline logic, that the content of any discipline course can be organized in any number of sequential or[illegible]. If this is true, then the discipline courses could be structured to correlate much more closely with the generic courses. The difficulty in taking this firmer posture, in insisting upon a tighter coordination, is that instructors already have a mind-set about how their specialty is supposed to be taught. This notion, like all entrenched notions, becomes a roadblock to innovation. Putting this in the context of this model, less time was spent in planning the discipline courses than the generic courses (and the whole process of plural pursuits) because the generic course loomed more formidable, and because those involved--even new instructors--had inherited from past teaching or past college work at least rough scenarios for teaching their respective discipline courses.

The college president realized early on that if the generic and discipline courses were allowed to drift too far away from parallel presentations, they would not form a coordinated "package" at all. The generic courses would be left as isolated collections of abstractions, complaints of their irrelevance by students and instructors would follow and there would be a reversion from intradisciplinary teaching to the traditional teaching of the disciplines. To counter this he enjoined any discipline course from being taught until a fully developed course outline was available for comparison with the outline of its generic course. Further, he asked the general education staff members to stretch their imaginations beyond even intradisciplinary teaching to interdisciplinary teaching. He suggested that not only could the discipline courses be coordinated with their respective generic courses, but that, possibly, the generic courses themselves could be coordinated one with another (see Table 12). Further, he challenged instructors to begin thinking about how to teach the Interdisciplinary Colloquy, constantly making the point that intradisciplinary experience for them and for the students was the best preparation for interdisciplinary teaching and learning.

The more general and encompassing the discipline course, the easier it is to coordinate with the generic course. This follows logically since both are dealing with the essence, with the whole rather than with the detailed parts. For example, the discipline course General Biology is easier to coordinate with the generic course, Drama of the Biosphere, than is the discipline course Anatomy and Physiology. The latter is much more detailed and requires a more inflexible sequence of content presentation. In coordinating with the generic course in behavioral sciences, The Nature of People in Society, the same could be said for General Anthropology as opposed to Cultural Anthropology, or General Psychology as opposed to Functional Aspects of Psychology, or Introduction to Sociology as opposed to Social Problems. In the social sciences, this same issue of determining what is general and what is specific arises in regard to California History or even United States History as opposed to History in a World Perspective.

As can be surmised from this discussion, the problem of coordinating discipline courses with generic courses that surfaced even in the early stages of planning raised questions on the definition of general education. It was discovered that some courses are obviously general education and others are obviously not, and there are some that fall in the indeterminate grey area. The looser the interpretation of general education, the greater the likelihood of proliferation of general education courses. Acceptance of courses on the borderline of specialization subverts the generic courses and the coordination of the discipline courses with them. If the generic courses in fact are not presenting concepts fundamental to their respective discipline courses, or are doing so in an uncoordinated fashion, then they lose their meaning and value, presaging the early return to the "cafeteria-style" presentation of disciplines as general education.

Several of the objectives of this general education program were to be met in both the generic and the discipline courses. Most notable of the overlapping objectives were the presentation of ethnic and women's perspectives, acceptance of cultural pluralism and movement toward a world view, and explication of societal issues with implications for their possible solution. As noted before, selection of ethnic and women instructors contributed toward assuring that their perspectives would be offered. These points of view just naturally rub off on the students. The same could be said for the objective of acceptance of cultural pluralism, but it does not follow that being Black or Chicano or Asian or being a woman gives an instructor a world view or helps that instructor to teach students how to develop a world view. If anything, the ties of these instructors to their own sub-cultures, life styles and roles may make them parochial and may circumscribe their own world views. Neither does ethnicity or feminity make instructors more aware of societal issues other than those of inequity by race and sex. It was for these reasons that during the planning year and the first operational year consultants were engaged to talk to the general education faculty about these objectives. Of course they could do little more than plant seeds which, hopefully, time and fertile surroundings will germinate.

In regard to "societal issues" there is a criticism that needs to be levelled now which will be developed later in the evaluation of the project. In the model as it developed there was a vagueness about how and where the societal issues would be taught. It was always clear enough that in both the generic courses and discipline courses instructors would relate the knowledge being taught to societal issues as the instructor saw them. However, there was no time when the student would get a systematic definition of these issues themselves, supporting evidence of their gravity and a presentation of the options open for their possible solution.

To explain these issues in the generic course would indeed preempt time which instructors already felt was too limited to allow full coverage of fundamental concepts. To seriously treat societal issues in the discipline courses would seem to require the instructor to move far away from the subject matter of the course, would call for knowledge which the instructor might not have and, again, would take time which, if used for this purpose, could not be used for coverage of the basic discipline content. Actually, instructors never raised the question of time for teaching societal issues since they seemed to see their function as limited to drawing implications from the knowledge they were presenting for the issues which they apparently assumed were already clear in the minds of the students. They did, however, question the time subtracted from the discipline courses for plural pursuits. This question on plural pursuits will be treated as part of the next chapter, and return will be made in Chapter X to correction of the model to assure systematic treatment of the societal issues.

CHAPTER V

Plural Pursuits

In Chapter 3 the idea of plural pursuits was briefly described and was called integral to the whole general education model. It deserves, and probably requires, much more explanation than was given, for the concept of plural pursuits is complex, hard to get a handle on, subject to easy confusion and difficult in its execution. It has stirred more controversy than any other aspect of the program. Many students have balked at the initiative and the work that plural pursuits forces upon them. Faculty members have complained a bit, particularly about the demand plural pursuits puts on their time. Some have remained skeptical about certain aspects, and a few question the basic concept. In light of this criticism, what is the case for plural pursuits as an integral part of this model? This chapter will make the theoretical case by means of explication of the concept. Judgment on its present and potential worth will be delayed to later chapters dealing with evaluation.

Rationale

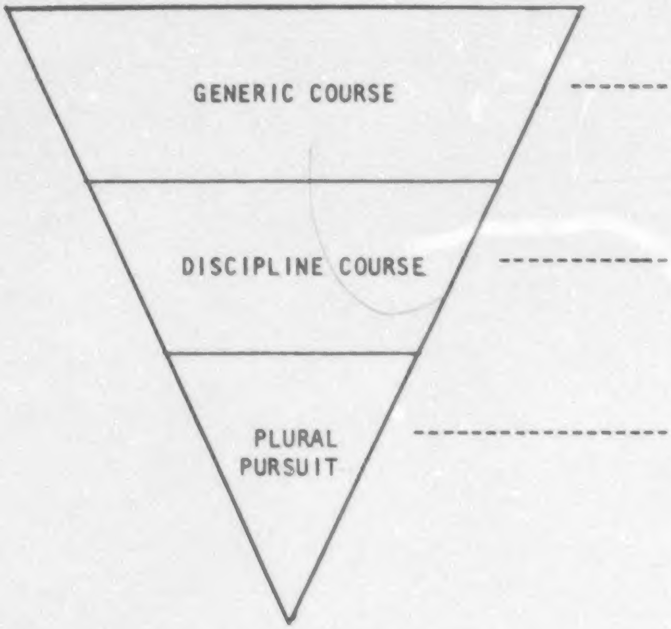
Plural pursuits is a means to provide the student experience in autonomy within the bounds of structure. As a group, community college students are characteristically lacking in autonomy; they seek escape from freedom. A person learns to be autonomous (self-directive and self-responsible) by having experiences in autonomy. However, if students are abruptly thrown into the deep water of freedom and are left to sink or swim, most of them will sink. If they are blithely told "do your thing," it simply ends in chaos and, for most, nothing gets done. What appears to be needed is a highly structured learning experience within which the student is obliged to take more and more responsibility for its design, its process and its product. Plural pursuits does just that: it forces students to take increasing responsibility for the goals and the design of their own educations.

A student does not become educated by attending classes for two years at a community college, or indeed by going for two, four or six more years to a university. Education is not a cargo that one takes on in youth and then uses up throughout adult life. A student simply embarks on an education in college and then continues that education throughout a lifetime. If this assertion is true, then it is incomparably more important that the student learn how to pursue knowledge than it is to get a two-year (or four-year or six-year) package of knowledge. The package of knowledge will become obsolete and will suffer the erosions of memory. Learning how to search out knowledge and gaining confidence that one can do it contribute toward making the person a lifelong student. And it is only the lifelong student who is truly educated.

Definition

A plural pursuit is an integral part of the discipline course which obliges the student to select and pursue a topic of interest directly related to that particular discipline. The institutional bias is to prefer that the topic be concerned with 1) ethnic and/or women's perspectives, or 2) career exploration or 3) societal issues. However, any topic related to the discipline which is agreed upon by instructor and student is admissable as long as the pursuit provides the student an experience in designing his/her own education.

The process in each intradisciplinary package is progressive narrowing from the general to the specific. The generic course where abstracted knowledge is addressed to ± 100 students narrows to a plural pursuit where very concrete knowledge is sought by one student (or by a small group) on a highly specific topic. In diagram form, this looks like an upside-down pyramid.

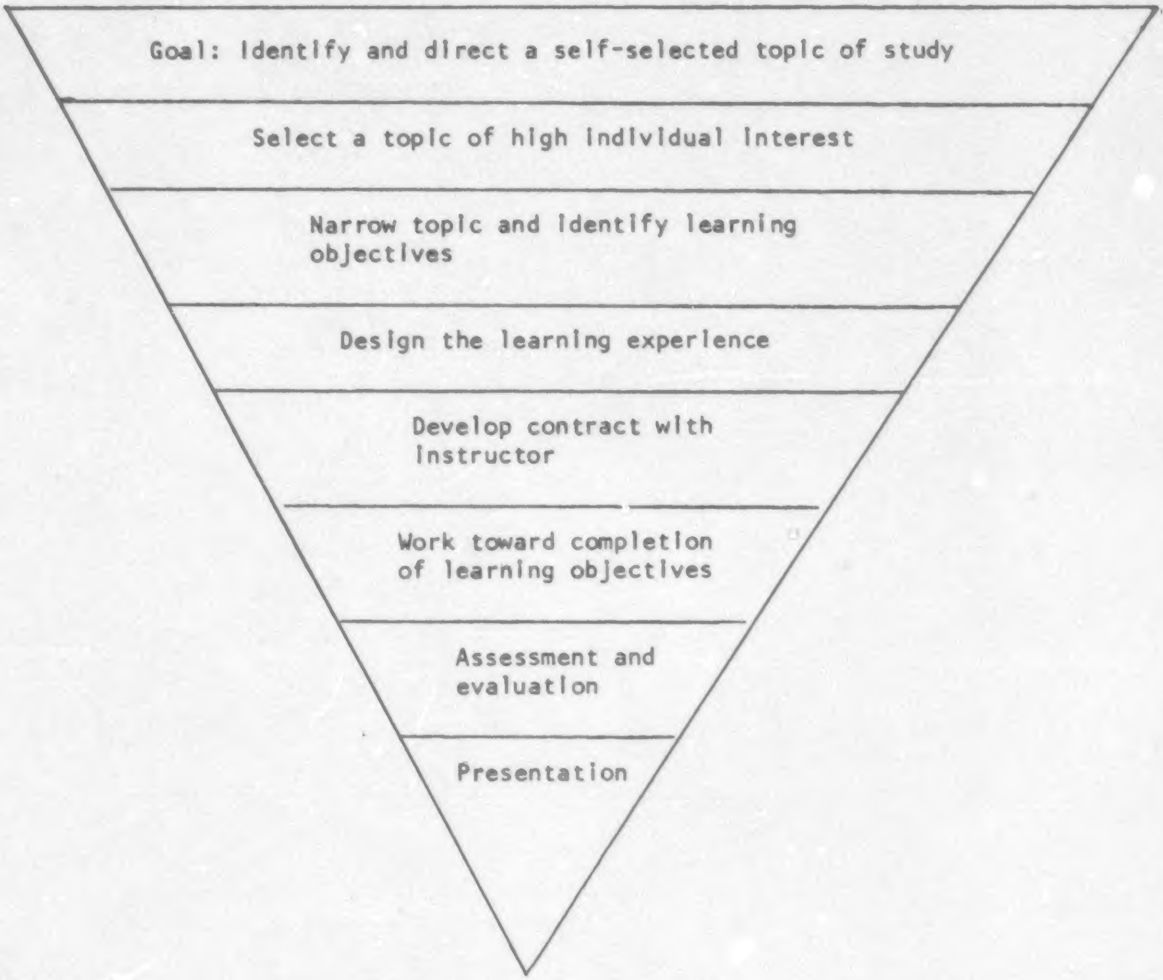


Concepts, principles, generalizations, theories, attitudes and values common to all disciplines within an area.

Systematic, logical development of the most essential data within a discipline.

Specific topic within a discipline selected by a student in which the method of exploration is also designed by the student.

This same process of progressive narrowing takes place within the plural pursuit itself and can be illustrated with a similar diagram.


Goal: Identify and direct a self-selected topic of study
Select a topic of high individual interest
Narrow topic and identify learning objectives
Design the learning experience
Develop contract with instructor
Work toward completion of learning objectives
Assessment and evaluation
Presentation

To avoid possible misunderstanding, it should be noted here that this process of progressive narrowing will be reversed in the Interdisciplinary Colloquy, where specific knowledge will be brought to bear on general societal problems.

Plural pursuits gives instructors and students an experience in contract education. Students and instructor are obliged to explore the question "What is worth learning?" and to communicate their thoughts one with another. This part of the student's education thereby becomes tailor-made. The student is pressed to first translate a vague interest into an articulate statement of goal and then to push on toward designing specific objectives and the means of achieving these objectives. The instructor sets the boundaries, sharpens the focus, suggests sources and resources, warns against blind alleys and in other ways imposes quality control. All of this can only be accomplished by the instructor's first talking to students in small groups and by eventually talking to each on a one-to-one basis. Thus plural pursuits was designed to build an element of personalization throughout the general education program.

In the summer session 1975 student uncertainty over plural pursuits prompted a project in which they posed some key questions, to which instructors gave their impromptu answers. Several of these speak to the point of defining plural pursuits:

Q. What is a plural pursuit?

A. (Stanley Chin, Chemistry) - A plural pursuit is a project which allows a student to relate knowledge obtained in the classroom to some aspect of personal interest and relevance.

Q. In what form can it be presented?

A. (Kate Brooks, Astronomy) - The plural pursuit may be in any form as long as it is consistent with the original agreement. These might include art, slides, or written or oral forms.

Q. What is the difference between a plural pursuit and a term paper?

A. (Henry Lawson, Political Science) - A plural pursuit is an opportunity for the student to have an active learning experience by searching out answers to questions which interest him. It is more process-oriented than product-oriented.

Q. What are the reasons for doing a plural pursuit?

A. (Olga Arenivar, Speech) - The reason for doing a plural pursuit is to enable a student to teach himself how to learn.

Elaborations

The opportunity for small-group and individual interaction between students and instructor was not left to chance. The concept of plural pursuits was designed as the third of a three-part plan of large-group (generic course), medium-group (discipline course) and small-group (plural pursuits) instruction. The grouping is typically from ± 90 students meeting once weekly in the generic course to ± 30 students meeting twice weekly and covering the traditional content of the discipline course to rotating groups of ± 10 students meeting once every three weeks in the plural pursuits segment of the discipline course. Daily office hours and the proximity of instructors' offices to the students encourage easy access and allows the ultimate narrowing to one instructor vis à vis one student. This format makes it likely that each general education instructor will know each student personally and at a level of intellectual intimacy. This is a goal which Los Medanos College seriously tried to build into its curricular structure.

It is understandable that a few instructors and many students would misperceive plural pursuits as a project over and above the usual requirements of the discipline course. Not so; it simply means the student pursues one of the plural options (hence the term "plural pursuits") by which objectives in the discipline course can be achieved. To be sure, the institution places a premium upon plural pursuits contributing toward ethnic and women's perspective and/or relating general education to career education and/or applying the knowledge of the discipline to one of the great societal issues. However, students may follow other interests if they choose. The key criterion is that the student's inquiry into a special interest will move that student toward achieving the objectives of the discipline course. This is the justification for allowing plural pursuits to represent one third of the grade awarded for the course. If the instructor does indeed misperceive plural pursuits as an "extra," then the student objection that the discipline course has been expanded to 4/3--to greater than unity--is a valid complaint.

Using discipline course time for plural pursuits appears to require that the instructor cover necessary discipline content in less time--but does it? Remember that the generic course and the discipline course are a package deal and that the basic concepts, principles, theories, generalizations, attitudes and values of each general education area are being covered in the generic course. If they are indeed being covered, then less time has to be devoted to them in the discipline course. Further, no one of the general education packages meets less than four hours per week, and those in the language arts, in the social sciences and in most of the sciences meet five hours per week or more. Compare this with the typical three hours of most traditional general education courses. Remember also that the plural pursuit itself should contribute to the coverage of the basic context of the discipline course; it is content being learned within the content of the special interest of an individual or a small group. But take the most negative view and assume that a little of the course content does get whittled away. Is that content more important than the students' maximum opportunity to learn to design their own educations? Couldn't a small loss of content coverage be made up by judicious assignment of readings or listenings or viewings in the Learning Resource Center?

The timetable for plural pursuits calls for continuous activity extending from orientation in the first week through evaluation in the eighteenth week. Their value resides more in the process than in the product. As a matter of fact, if the process is demonstrable and can in itself be evaluated, there need not be any product at all. In this and other ways, they are substantively different from a term paper. Plural pursuits means that the students are following parallel paths, yet their own individual paths, toward the objectives of the discipline course. It completely subverts the point to think of these as either term papers or supplemental projects to be done after the content of the course has been covered. They are part of the content of the course and should be woven in concurrently.

Los Medanos College is committed to making ethnic and women's concerns a central part of the educational enterprise. Since the viability of separate ethnic and women's studies is not only questioned but rejected, the college accepts the special obligation to select staff members who are eager to make ethnic and women's concerns pervasive throughout the curriculum. For this reason, there is an institutional bias toward making plural pursuits contribute toward development of ethnic perspectives and women's perspectives. Of course these perspectives are also of great concern in the generic courses and in the conventional part of the discipline courses. However, in the latter cases it is the instructor dealing with ethnic and women's perspectives. In plural pursuits it is the student facing up to the issues of racial and sexual roles in this society. It isn't likely but it would be possible for a student (say the student who objects to the absence of separate ethnic studies or women's studies) to gear his or her plural pursuits to ethnic issues or to women's issues in all six of the general education areas.

The college also takes an institutional position in encouraging students to use plural pursuits to bridge over from general education to career education and in the process to explore their relationship and relevance to each other. This kind of emphasis is possible in the plural pursuits connected with any one or all six areas of general education. There was an anticipated dividend which should, and in fact does, accrue from this: it prompts, indeed obliges, general education and career education instructors to collaborate, and in their communicating and working together they come to understand and appreciate each other's contributions.

Of course no one plural pursuit can serve every purpose, although it is true that several purposes can be merged. Be this as it may, in meeting all six general education requirements, the student will engage in six different plural pursuits. Perhaps one or two of them could be oriented toward ethnic or women's perspectives, one or two could connect general education with career education, these or still another could gently push the student off the campus and into involvement with the community, and the remainder could be self-challenges on the part of the student to study some relationship between the knowledge of the discipline and a societal issue. Hopefully, this last direction would lead the student right into a Sophomore Colloquy, where he or she could apply the special knowledge gained in the plural pursuit to the societal issue under scrutiny in the Colloquy.

Return is made now to some of the important questions posed by students and answered by instructors.

Q. How can I go about doing a plural pursuit?

A. (Kate Brooks, Astronomy) - Step 1: pick topic; Sept 2: decide on objectives; Step 3: choose content; Step 4: do project (and be willing to accept discouragement).

Q. What are the restrictions on topics? Boundaries?

A. (Stanley Chin, Chemistry) - The topic should relate to the subject material and to some aspect of learning activity in the classroom.

Q. Suppose a student is stuck for a topic. What would you suggest?

A. (Henry Lawson, Political Science) - My suggestions are: sit down and brainstorm; write down topics (don't evaluate); do something you like; get agreement of instructor. As a last resort, instructor will help you pick a topic.

Q. How do you evaluate plural pursuits?

A. (Henry Lawson, Political Science) - The major factor in evaluating a plural pursuit is whether or not the student did what was agreed upon. It is important for students to follow the steps of the process defined in the contract. The end-product is very seldom the major weight.

Thus far the rationale for plural pursuits has been developed, their meaning defined and elaborations on both rationale and definition have been detailed. What will be discussed next is how the instructors organize for plural pursuits or what Dr. Chester Case, Professional Development Facilitator at the college, calls the teacherly task. Because it is right on target and because it illustrates how curriculum development can become the content for staff development, the next section will be a paper written by Dr. Case and used by him in working with instructors.

Organizing for Plural Pursuits by Chester Case, Professional Development Facilitator

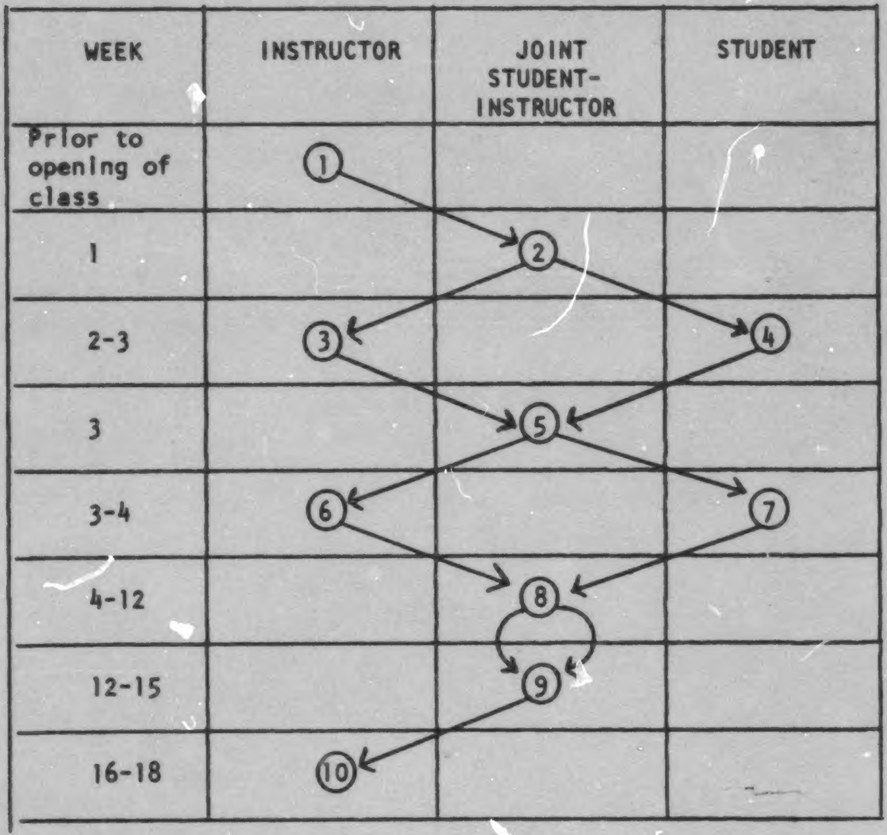
There is considerable range in the way instructors introduce the plural pursuits concept to their classes. Some prefer the detailed handout (see Appendix 5, Plural Pursuits in Anthropology by Gail Boucher), some outline the total process and provide a structure by which to begin (see Appendix 6, Plural Pursuits for Physical Science by Stanley Chin) and still others simply broach the subject and then invite continuing oral dialogue (see Appendix 7, Plural Pursuits for Humanistic Studies 20TG by Connie Missimer). As to the content of the plural pursuit, some instructors prefer to weave it in tight with the subject matter while others, as reflects their subject matter, encourage a wider and looser application. In any event, experience has shown that the instructor is well advised to think through how the plural pursuit is going to be incorporated in his/her class and to introduce it with care, so as to both motivate the student and give a sense of direction.

Actually, the introduction to plural pursuits and the handout to the students comes at the second stage of a time line schematic depicting the sequence of events for the instructor and the student. Such a schematic is presented in Table 13. It is presented both as an illustration of what is occurring and what, in my judgment, should be occurring. This schematic is referenced by number to the items in the accompanying explanation and discussion.

TABLE 13

A SCHEMATIC FOR THE PLURAL PURSUITS PROCESS

Showing the Activities of the Instructor
and the Student and the Interactions Between Them



WEEK	INSTRUCTOR	JOINT STUDENT-INSTRUCTOR	STUDENT
Prior to opening of class	①		
1		②	
2-3	③		④
3		⑤	
3-4	⑥		⑦
4-12		⑧	
12-15		⑨	
16-18	⑩		

I. Prior Planning by Instructor

At this stage, before the opening of class, the instructor thinks through the plural pursuits component and relates it to the content of the course and its organization. For the first few times around, it is probably better to be flexible about decisions made at this stage since surprises may occur. Here are some tasks to think about at this stage:

...how to organize the content of the subject to make room for the plural pursuits.

...how to explain the concept of plural pursuits to students.

...how to motivate students.

...how to articulate the content of the generic course with the discipline course to the plural pursuit.

...how to deal with logistics problems, such as class meetings, conferences, developing contracts, record keeping.

...how to bring students along in developing their own learning experience in respect to identifying an interest, narrowing the interest to a manageable focus, stating learning objectives, planning a time line.

...how to evaluate plural pursuits and what weight to give a plural pursuit in the course grade; what to do if a student does not/will not complete a plural pursuit.

...what kind of contract to use (see Appendix 8 for optional contract form).

...look at examples and approaches from other instructors.

...think up some ready-made topics for students who get stuck.

2. Opening of Classes

Practices vary on the matter of when and how to get into plural pursuits at the opening of classes. Some prefer to get right into it in a big way, others go into it gradually, and some find it useful just to establish that there will be plural pursuits, then let students get a feel for the substance of the course for two-three weeks before getting into it. There are pros and cons for both the "get right into it," and the "hold off for a while" approaches. The main variable seems to be the nature of the subject matter. There is no argument to this though: it is disaster for the student and instructor alike to ignore the concept for weeks then suddenly dump it on students after routines of the class have been established and students' expectations are well on the way to jelling. Whatever degree of attention is paid to the concept at the outset, these are among the premiere understandings to get established:

...introduction to the concept of plural pursuits in the context of the general education plan.

...the rationale for plural pursuits.

...clarification of expectations levied upon the student.

...sketching in of the four concerns prefered by the college (ethnic concerns, women's concerns, vocational concerns, societal issues).

...parameters for the plural pursuits such as emanate from any particular subject matter.

...description of the plural pursuits calendar and logistics.

...encouragement and allaying of anxiety: stressing the positive advantages of self-planned learning and the offer of instructor assistance.

...perhaps an inventory of potential interests, forming of small groups, launching of projects for self-starting and plural pursuits-wise students.

...perhaps an indication of prospective topics (some prefer not to influence student choices too much by giving examples of prior experience).

3. Instructor Planning

Sometime in the first 1-3 weeks the concurrent processes of instructor and student planning begin. The opener of the process is instructor initiative in asking students to identify areas of interest to them. Among other things, the instructor:

...appraises the nature of the class and persons in it (have some done plural pursuits before? what was their experience? does there seem to be any clustering around areas of interest that might make workable groups?).

...adjusts the plan as appropriate.

4. Student Planning

The student is getting used to the idea, exploring possible topics, narrowing the topic boundaries, exploring materials and resources.

5. Developing the Project

At an appropriate time, probably somewhere between the second and fourth week, class time is used to develop individual projects. This is a crucial step. It is also frustrating for student and instructor alike because it forces the issue of translating a large, general interest into a workable plan which is to be put in the form of learning objectives in a contract format. The instructor:

...helps individuals (maybe small groups) develop ideas by brainstorming, conference, giving examples, suggesting resource people and resource materials.

...reviews the possibilities, stressing the flexibility of the concept in respect to being product oriented and/or process oriented.

...helps students state objectives, plan a time line, anticipate needs in terms of resources.

...helps students move out of stalemates, avoid dead ends, generate new ideas.

...helps students write the contract.

...explains the significance of the contract.

...acquaints students with resources available and how to make use of them, e.g., other faculty members, Learning Resource Center, personnel and materials, community agencies and persons.

...explains the role of and how to make contact with Mr. Edwin Boles, Resource Librarian for Plural Pursuits.

...arranges for Mr. Boles to familiarize students with the Learning Resource Center and with auto-tutorial materials specially developed for plural pursuits, such as:

...how to make graphs for presentations
...how to conduct an interview
...how to design a survey
...how to write objectives
...how to prepare a mediated presentation.

6. Instructor Assistance

Commencing at an appropriate time, perhaps as early as the second week or as late as the fourth, the projects move into earnest pursuit. Instructor assistance can be most helpful to students at this stage, since many students unfamiliar with the concept and untried at self-directed learning may assuage their apprehensions by ignoring the assignment and procrastinating endlessly. This is also the phase that ushers in the logistical problems of meeting with students and keeping track of their activities, which are going on concurrently. In this phase, the instructor can:

...review and help rewrite unworkable contracts.

...meet with individuals and/or small groups to clarify project objectives, to hear progress reports or to provide good cheer and encouragement.

7. Student Activity

The student launches out in pursuit of his/her project. He/she may:

...locate materials, resource persons.

...initiate process experiences.

...consult with other faculty members.

...consult with Mr. Edwin Boles, Plural Pursuits Librarian, and search vertical files which are a treasure trove for plural pursuits.

...keep in contact with the instructor.

...redefine objectives, rewrite contract if necessary.

8. Periodic Conferences, Consultations, and Progress Reports

Continuation of instructor assistance/student activity, for perhaps another eight to nine weeks. One third of the class should be meeting with the instructor every third week for small groups. Again, experience has demonstrated that the logistics of plural pursuits can become onerous, even devastating, unless provision is made for timely and helpful intervention by the instructor.

9. Students Report Back and/or Share Outcomes of Projects

Many instructors are finding it useful to set the due date 12-14 weeks into the semester. This allows time for student reports and/or sharing, either in writing or in oral presentations to the instructor or to the class. Only projects of surpassing value to all class members should take up class time for oral presentation. Setting the due date several weeks before the end of the semester also allows for repairs to faulty projects.

10. Evaluating Projects and Computing Final Course Grade

Since plural pursuits is a semester-long activity which absorbs at least one third of the student's time, it is reasonable to base one third of the grade given in the discipline course upon the quality of the plural pursuit. Again, the point is made that since plural pursuits are most often process oriented, the grade should reflect the quality of the process and not necessarily the quality of the product.

Examples of Plural Pursuits Projects

During the fall of 1975 a call went out inviting instructors' descriptions of plural pursuits projects done by students in their spring 1975 classes. An example from each of the 6 subject areas was drawn from this collection and is presented here to give the substance and flavor of plural pursuits. Further examples of plural pursuits drawn from the 23 discipline courses are presented in Appendix 9.

BEHAVIORAL SCIENCES

Example 1, taken from an anthropology class taught by Gail Boucher:

After a recent visit to her newly re-located parents home in the Clear Lake area, one woman became interested in the Native Americans who inhabited the area. Her project, to study the Pomo Indians of Lake County, California, resulted in several visits to the reservations there and a sensitive relationship with one of the elderly Indian men, who told her stories and myths passed down from his own parents. She was able to see some of the famous Pomo basketry, and from her review of Pomo history (written research and interviews) she has become aware of the whole Native American movement and is pursuing this interest further on her own. The emphasis really changed from a research project to field-work with some of the Native Americans themselves. She has stated that she would never have thought to approach a reservation or to talk to the people there without a reason such as her project gave her.

BIOLOGICAL SCIENCES

Example 2, taken from a biological science class taught by Paul Hansen:

Two students in Biological Science 10TG made a microminicourse on the vocational pursuit of medicine, including the average costs of education, location of medical colleges on the Pacific Coast, number of years needed to complete an education in medicine, etc. The unit included a printed study guide supplemented with a cassette tape, which are now available for general student use in the Learning Resource Center

HUMANISTIC STUDIES

Example 3, taken from an art appreciation course taught by Larry Howard:

Two Chicana women (returning housewife/middle aged/part-time students) began with a very traditional research format to study work of pre-Columbian Mexico. Stumbled across "Los Tres Grandes" and changed project to Mexican Murals. Then when introduced to slides of a group of women muralists working in the mission district of San Francisco, they again changed project to try to identify the influence of traditional Mexican art and culture on contemporary Chicano artists born and working in the United States. I was able to help them set up interviews with two young Chicano artists (Mike Lopez, Walnut Creek and Louis Guiterriz, San Jose) which they taped and used in their report. They then became involved in the setting up of the La Raza Art Exhibition that we had last year and spent a lot of time and energy doing the leg work between the art area, La Raza Club and the artists and actually assisted on the installation of the 200-piece show when it was hung.

LANGUAGE ARTS

Example 4, taken from a composition course taught by Ross MacDonald:

A candidate for the RN program, who was originally in the right-to-live/right-to-die debate group, was interested more in the human side of "pulling the plug" than in the sociological and political aspects of the problem. She wrote an imaginary diary of a dying patient to affectively demonstrate the need for a humane approach to euthanasia. Although fiction, the diary was based on the nurse's experiences as an LVN in a terminal ward. The diary traced the decline of the imaginary patient from happy grandfather through incredible, inhuman pain, to a long overdue death. Not only did the student learn more about the changes in a dying person's world view, she underwent the agony of re-experiencing a painful event in order to recreate it for others. In other words, she learned, affectively, of the tremendous giving required of any author transposing private experience into public.

PHYSICAL SCIENCES

Example 5, taken from a chemistry course taught by Stanley Chin:

A student, aspiring to be a pharmacist, decided to study several types of "home brew remedies." She obtained some recipes from individuals and some from references books in the Learning Resource Center and the local public library. After preparing seven of these remedies, she tested them out on her family for pharmacological effectiveness. Four of the seven were judged to be effective in providing relief for the common cold. Next, she attempted to identify the active component in the ingredients used in the four preparations and to correlate the activity of these components with their molecular structures.

SOCIAL SCIENCES

Example 6, taken from a history class taught by Jane Hunnicutt:

> One student wrote a fully documented, personal history of her family's immigration from Mexico to the United States. It described living in Southern California, problems, jobs, joys and eventual residence in Contra Costa County.

The philosophical basis for the general education model, the context in which it operates, the overall description of the model and explanations of the particular generic, discipline and plural pursuits elements have been covered. Attention will now be turned to the method of evaluating the project and finally to the results of this evaluation.

CHAPTER VI

The Design for Evaluation

Even at the conceptual stage, it was realized that the general education plan was a bold and innovative step for any college to take. It involved risk--would the teaching staff be willing and able to do the planning and to make the plans work? Concurrent with the decision to commit Los Medanos College to this general education model was a second decision to begin evaluation immediately. To this end, overtures were made to Professor Leland L. Medsker*, who agreed to develop a design for evaluation and to assist in carrying out this evaluation.

Professor Medsker was quick to stipulate that in the two-year trial period (1973-74 for basic planning and 1974-75 for elaborative planning and beginning execution) it would be impossible to seriously measure the educational impact on the students. Instead, his design for evaluation focused on the planning process itself. This can be seen from the three overall objectives which he established for evaluation during the two-year trial period.

Objectives of the Evaluation Plan

Based on statements in the General Education Grant Proposal and in other college documents, the following objectives should be subjected to evaluation:

1. To demonstrate that it is possible to plan in a systematic fashion both an intradisciplinary and an interdisciplinary program in general education.

   The college has specified several objectives for its planning efforts, among which are the following:

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*Professor Emeritus in Higher Education, University of California, Berkeley, and former Director of the Center for Research and Development in Higher Education.

a. To provide a systematic calendar of events leading to the development by the staff of an innovative curriculum in general education.

b. To provide experience in team planning and cooperative decision-making in the design of this core curriculum.

c. To develop intradisciplinary course outlines in the generic courses for each of the six general education areas.

d. To develop course outlines in the discipline courses which relate directly to their respective generic courses.

e. To provide in-service training (staff development) for the infusion of cultural diversity and an international perspective into the general education courses.

f. To inform general education team members of media resources and application.

g. To provide in-service training on the theory and practices of planning, presentation and evaluation of mediated teaching/learning.

h. To offer opportunity to practice skills in such simulated teaching/learning situations as teaching/critique sessions with peers and presentation of units of instruction to selected students.

Note that all of these objectives apply directly to the instructors and only indirectly to the students. The focus is on the process of planning, not the product of the planning. An overall term for this phase of evaluation might be The Process of Planning. It is an important aspect of the entire experimental program because careful long-term planning in curriculum development is rare and difficult. If the Los Medanos College planning process is successfully completed, the process alone would become exemplary.

2. To evaluate the extent to which the planning process itself influences faculty competence in achieving the objectives of the general education program. While specific planning steps would presumably have an impact on faculty, this should not be taken for granted. An attempt should be made to determine by self-report whether there is a relationship between the planning process and faculty development, even though cause and effect relationships may be difficult to establish. This phase of the evaluation may be appropriately designated as Relationship of Plan to Faculty Development.
3. To lay the groundwork for later evaluating student development in terms of the program's objectives. Neither the length of the project nor the calendar of events will permit a substantial evaluation of how planning affects the target group, namely, students. Yet eventually the college will have to evaluate the program in light of its effect on students. Again, the difficulty in establishing cause and effect relationships is recognized, but it is proposed that a modest evaluation of impact on students be made during the 1974-75 academic year and that this experience constitute a background for later studies of students. This phase of the evaluation process may be referred to as The Relationship of Planning and Faculty Development to Student Development.

Steps in the Evaluation Process

In order that each person engaged in the development of the general education program--faculty and administrators alike--know precisely the ingredients and the expectations of the planning process, it was necessary to develop a schema for meeting the objectives of the evaluation plan. Professor Medsker did this by providing the staff with the following three tables. As can be seen, they were organized along the lines of the three major objectives and are self-explanatory.

TABLE 14

EVALUATION DESIGN:

PROCESS OF PLANNING

First Year - 1973-74

Goals and Objectives	Events and Activities	Products, Outcomes, Consequences
1. Demonstrate feasibility of planning.	1. Two-hour weekly seminars.	1. Detailed description of the calendar of events that actually took place: what, when, attendance. Document so that calendar reflects reality. Perhaps prepare in brochure form as a possible model.
2. Provide systematic calendar of planning events.	2. Three faculty retreats of two days each.	2. Compilation of intradisciplinary course outlines.
3. Provide team experience in planning.	3. General resource speakers and consultants.	3. Outlines for generic courses.
4. Develop course outlines.	4. Use of special consultants by area and in some cases for individual instructors.	4. Written evaluation (by faculty and other staff) of individual facets of the planning program: resource people, retreats, weekly seminar, in-house consultants, etc.
5. Provide in-service training for infusion of cultural diversity and for theory and practices of planning, presentation and evaluation.	5. Extraction of common concepts and principles for generic courses.	5. Overall evaluation by staff of what was accomplished during the year.
6. Inform faculty about sources of media and their application.	6. Coordination, even synchronization, of generic courses with their respective discipline courses.	6. Evaluation by the non-general education instructors.
7. Provide opportunity to practice skills in simulated teaching/learning situations.	7. Critique of general education courses by non-general education instructors.	7. Impressionistic evaluation by outside evaluators.
	8. Development of a packet of course outlines and unit plans for all general education courses.	

Second Year - 1974-75

Products of 1973-74 Efforts	Effectiveness in Actual Practice
Experience in team planning. Course outlines for both generic and discipline courses.	Staff response to questionnaire-type items on the adequacy of outlines, team cooperation and other presumed outcomes of the planning year.

TABLE 15

EVALUATION DESIGN:
RELATIONSHIP OF PLANNING TO FACULTY DEVELOPMENT

First Year - 1973-74

Goals for Faculty Development	Indications of Faculty Growth
1. Skill in the development of course outlines and unit plans. 2. Increased communication among faculty members regarding their curricular planning and teaching. 3. Willingness of faculty to subordinate themselves in team planning. 4. An increased respect for cultural diversity among faculty and an infusion of this cultural diversity into the curriculum. 5. Development of a commitment to the intra-interdisciplinary approach. 6. Skill in planning for large group instruction. 7. Imaginative pre-planning for the plural pursuits by individual students. 8. Subscription by the non-general education instructors to the general education core and the integration of their courses with it.	1. Post self-evaluation by each faculty member of the influence of the planning year on his or her readiness to begin the general education program. The goals (as outlined on the left) should be specific elements of the self-evaluation. The statement could be structured or open ended. 2. Evaluative statement by the non-general education instructors of the effect this planning year had on them. 3. Summary of library materials or new media requested by faculty as evidence of interest and professional growth.

Second Year - 1974-75

Goals as of 1973-74	Evaluation
Same goals.	1. Evaluation by peers (faculty and administrators) of faculty performance in team efforts as well as the understanding each member has of the others' disciplines. 2. Self-evaluation by each member of how he perceives himself in the program now that he is into it. 3. Student evaluation of each faculty member and of the program in general. Use an evaluation instrument which the faculty helps to construct or perhaps the Student Reaction to College Instrument developed by Jonathan Warren of Education Testing Service, or the student evaluation instrument developed at the University of Green Bay, Wisconsin. 4. Survey of each faculty member's participation in community affairs.

TABLE 16

EVALUATION DESIGN:

RELATIONSHIP OF PLANNING AND FACULTY DEVELOPMENT TO STUDENT DEVELOPMENT - 1974-75

Selected Goals for Students	Student Outcomes
To acquire a working vocabulary of concepts and the body of skills basic to six broad areas of human knowledge: behavioral sciences, social sciences, biological sciences, physical sciences, language arts and humanistic studies. To see the interrelationships of these six areas and to develop interdisciplinary approaches to them. To work toward an understanding of self as an individual, as a member of society, as a biological creature in a finite and fragile world, and as a creator. To begin to test personal values against values embodied in the six areas of knowledge. To begin to apply knowledge and understanding toward solution of the great societal issues now facing humanity. To understand and appreciate the cultural pluralism of this society. To begin to acquire a world view, a comprehensive picture of the human condition and the total context to which the individual's existence is tied. To develop skills in organizing and carrying out self-selected programs of study through the "plural pursuits" component of this general education program.	Could probably measure such factors as the following and make inferences from them. 1. Student persistence. 2. Performance of students in terms of: a. What they did on their plural pursuits contracts b. Reported reading, listening and viewing habits c. Grades earned 3. Self-evaluation, through some structured means, of: a. Their changes in attitudes, values and other affective aspects of learning. b. Their growth in knowledge of interdisciplinary relationships.

Other Evaluative Measures

Evaluation of a developmental program also becomes developmental. Experience suggests dimensions that can at least be assessed if not accurately measured. For example, if infusion of ethnic and women's perspectives is one of the goals and if the assumption is that minority and women instructors are more likely to be committed to such cultural pluralism, then noting the number and percentage of Black, Chicano, Asian and women instructors who have been hired by the college becomes an evaluation measure. Another example: If the evaluators become observers at the retreats and if they occasionally attend the weekly seminars, they begin to get a feel for the progress, the problems and the prospects of the whole enterprise. In the chapters that follow, the more subjective comments and opinions of the evaluators can be traced back to the many cues, overt and subliminal, which they picked up by simply observing the staff members at work.

It was initially intended to use only the second-hand measure of faculty report on the impact of the general education program on students. However, during the first operational year (1974-75) it became apparent that it would be of value to simply ask the students for their reactions to the generic courses. This was done and the results will be reported in Chapter IX.

Still another evaluative measure grew out of the president's insistence that an important assumption be double checked, the assumption that colleagues within a broad area of knowledge could extract and agree upon the concepts and generalizations common to all disciplines within that area. Once it had been tested in practice, it was no longer an assumption; the listings of concepts and generalizations became evaluative data showing that this key idea for generic courses was a viable one. To be sure, this task was not done in a definitive or final way, but it was demonstrated that instructors in related disciplines could argue out and come to reasonable agreement on commonalities that deserved emphasis within their generic course.

And finally, course outlines, which are required to be on file before any course is taught, became evaluative data. Scrutiny of these course outlines for goals and objectives, for content, for learning strategies, teaching tactics and for instructional materials reveals whether these courses offer general education or special education, whether they are intradisciplinary, whether they address themselves to societal issues, in short, whether or not they reflect the objectives of the General Education Project.

Evaluation Instruments

The year 1973-74 was used for basic planning by the instructional staff and for development of an evaluation design by Professor Medsker. During that year the Los Medanos College staff was temporarily assigned to Diablo Valley College and was teaching the more traditional offerings of that college. By fall semester 1974 the instructors had moved to their new campus and were engaged in day by day testing of the generic and discipline courses which they had spent a year in planning. The evaluation also moved from the design to the operational stage. Professor Medsker secured the assistance of Karl O. Drexel, Hon. D.H.L. and former Superintendent of the Contra Costa Community College District, to collaborate with him on the evaluation of the total project. Both evaluators had considerable contact with the general education faculty throughout 1974-75 in the informal settings of retreats, seminars and meetings. In addition, they developed three evaluation instruments to gather more systematic data.

The first of these was a questionnaire which combined forced-choice ratings and open-ended questions. It was divided into three parts: 1) Focus on the Process of Planning; 2) Focus on the Influence of the Planning Year 1973-74 on the Development of Participating Faculty Members; and 3) Focus on Overall Accomplishments of the Planning Process. (See Appendix 10 for a detailed reading of this questionnaire.) This instrument was administered to general education staff members in fall 1974 after they had had time to develop some perspective on the 1973-74 planning year. The responses to this questionnaire make up the basic content of Chapter VII, Evaluation of the Planning Phase.

The second evaluation instrument was a highly structured interview with two parts, the first for general education instructors and the second for non-general education instructors. Within a four-day period in May 1975 the evaluators were able to interview all contract members of the Los Medanos College faculty. The open-ended questions posed to the general education instructors were designed to assess the impact of the general education planning process on 1) the individual, 2) the general education program, and 3) the institution. The questions addressed to the non-general education faculty asked if the planning for the general education program 1) resulted in institution-wide knowledge about the program, 2) had any effect upon the teaching of the non-general education faculty, 3) had favorable/unfavorable impact upon the non-general education faculty, and 4) whether the general education program itself had been favorably/unfavorably received. (See Appendix 11 for the questions and format used in these interviews.) The generalizations drawn by the evaluators from the responses to these questions make up the substance of Chapter VIII, Impact of the Planning Process.

The third evaluation instrument was also a combined forced-choice and open-ended comment type of questionnaire which was administered in June 1975 to the students in the generic courses. This was done in all areas except that of humanistic studies. (See Appendix 12 for a copy of the questionnaire used.) The results of this very preliminary and partial attempt to measure student reaction to the general education program are reported in the last section of Chapter IX, Beginning Evaluation of Other Aspects.

CHAPTER VII

Evaluation of the Planning Phase

The previous chapter presented the three major objectives of the evaluation of the general education program: The Process of Planning, The Relationship of Planning to Faculty Development and The Relationship of Planning and Faculty Development to Student Development. In this chapter and the two that follow the results of the two-year evaluation will be reported.

It should be pointed out that the evaluation of the Los Medanos College General Education Project deals primarily with the planning process and its effect on the instructors, its effect on the general education program and its effect on the institution. Only a beginning was made in evaluating the impact of the general education program on students. To be valid, student evaluation must be done on a long-term basis. Los Medanos College has only been operational for one year, 1974-75.

Evaluation of the planning depended largely upon two processes. The first was a questionnaire entitled "Participant Evaluation of the Los Medanos College General Education Planning Project," which was administered in October 1974. The second consisted of interviews with both the general education faculty and the non general education faculty which were conducted by the two outside evaluators in May 1975. In addition, the evaluators' subjective impressions of the Project were considered important and deserving of report.

The "Participant Evaluation" questionnaire, referred to in the preceding chapter, solicited responses from faculty members participating in the General Education Project. The phase of the Project to which these instructors were responding was the planning year 1973-74. During this time the general education faculty and the administrators met to develop curricula, course outlines, methods and materials.

This evaluation instrument follows the plan of evaluation developed by Professor Leland L. Medsker and uses the "forced-choice" format for better focus, obliging each respondent to answer the same questions. In addition, however, the participant was encouraged to make elaborative comments. They did this, and the gist of their comments will be reflected in this report.

Focus On The Process of Planning

There were several different activities that made up the planning process during the year 1973-74. On the questionnaire given in fall 1974 the general education faculty members were asked to give their respective judgments as to the helpfulness of each facet of the planning process. Before responding, they were instructed to think of each facet of planning in terms of its contribution to the accomplishment of the goals of the Project.

As might be expected, the weekly two-hour meetings of the separate academic areas (i.e., humanities, language arts, social sciences, physical sciences, biological sciences, and behavioral sciences) were rated as the most helpful. Similarly, the presentation by the respective areas of 30-minute samples of their generic courses at the 1973-74 mid-year Boulder Creek retreat were judged to be very helpful. Apparently the faculty members were anxious about their generic courses and therefore rated as most helpful those activities that allayed this anxiety. The informal discussions and the informal socializing that occurred at the mid-year retreat were also rated by all as being helpful or very helpful. In many different ways throughout the

the questionnaire faculty members indicated that the input to the general education program by their colleagues was of maximum value. As one faculty member put it: "Without question we never could have achieved the feeling of togetherness, the need for cooperation, the ideal of common purpose, the mutual respect for others and their opinions, were it not for the development of the general education program through its retreats, seminars and area meetings."

It is noteworthy that this anonymous questionnaire, which was tabulated by the outside evaluators, showed that almost all of the faculty considered every facet of planning either "very helpful" or "helpful"--including presentations by guest speakers.

The tabulation of the ratings of activities during the weekly general education seminars and the mid-year retreat are given in Tables 17 and 18.

TABLE 17

FACULTY RATINGS OF ACTIVITIES IN THE WEEKLY SEMINARS

Helpfulness of Program Facets	No Answer*	Not Helpful	Helpful	Very Helpful
Weekly planning meetings by area			5	21
Meetings of the whole for "business," e.g., clarifications, directions, planning		1	20	5
Meetings of the whole for discussion and exchange of ideas, presentations and progress reports	1	2	16	7
Meetings of the whole for presentations by guest speakers and resource persons		6	14	6

*This column was added by evaluators.

TABLE 18

FACULTY RATINGS OF ACTIVITIES AT THE MID-YEAR RETREAT

	No Answer*	Not Helpful	Helpful	Very Helpful
Presentations by areas	4	1	4	17
Discussions by group as a whole	4	1	13	8
Discussions by areas	2	2	10	12
Informal discussions	3		10	13
Informal socializing	3		8	15

*This column was added by evaluators.

It was important to discover whether the balance between general meetings and meetings of the six subject areas was a reasonable one. Ten faculty members believed the proportion was overbalanced toward meetings of the whole; twelve faculty members believed the proportion was about right; two believed the proportion was overbalanced on the side of the area meetings; and apparently two couldn't make up their minds.

The questionnaire had some open-ended questions as well as forced-choice ratings. The summary of the responses to these questions, as well as some typical individual responses, follow.

1. Which aspect, or aspects, of the planning process do you feel were indispensible during the planning year?

   Again, the majority believed that the planning, the sharing, the thinking through of curriculum, the exploration of teaching methods and instructional media, all done in the weekly area sessions, were the most indispensible. The faculty also believed that the informal and formal small group meetings, styled as "think tank meetings," retreats, freedom of sharing meetings and meetings to explore and exchange ideas were essential to the success of the program.

2. Which aspect, or aspects, were most significant to you personally?

Again, the leader was "the weekly planning sessions and the development of unit topics." However, four thought that the mid-year retreat was the most significant effort made, and, interestingly, three believed that stimulus to intellectual growth was the most significant. Some others responded with "the scope of societal implications and ethnic perspective," "interaction with colleagues and the existence of an intellectually sound rationale and framework for the general education program," "learning to work with my colleagues in language arts area," "learned to respect their creativity," "every aspect essential to the whole" and "willingness to divide the labor and cooperate."

3. If you had it to do over again, what would you recommend for improving the 1973-74 planning process? What was missing from the 1973-74 planning process that you would like to have seen included?

The responses to these two questions could not be grouped into neat categories. However, the general education faculty members were not without criticism. Four believed that more emphasis should have been placed on demonstration of model lessons, while three felt guest speakers should have been more relevant. Other interesting comments were, "all bases were touched BUT did we overkill?", "more work type sessions to clarify terms," "more sharing of general education courses and exchanging ideas across disciplines on one-day retreats," "instructional strategies for large groups," and "should have spent more time on general education."

4. Thinking in terms of the planning process, what in your opinion are the most desirable attributes in a guest speaker/resource person?

The majority believed that the speakers and/or resource persons should have been more knowledgeable about Los Medanos College and the General Education Project. Six expressed that concern with statements like "something to say that is relevant and intellectually stimulating." Some typical responses were "we should have more community college people," "be more specific, aggressive and decisive regarding general education problems," "they should understand the concept of team planning," "should be accessible after their presentation," "local people who are aware of local problems," "should function in a workshop setting" and "be prepared for dialogue which might engage conflict."

The Influence of The Planning Year on The Development of Participating Faculty Members

The evaluation plan called for "post self-evaluation by each faculty member regarding the influence of the planning year on his or her readiness to begin the general education program." To this end, each participant was asked the general question "to what degree did the planning year influence your feelings of readiness?" To generate specific responses the participants were asked to rate areas of preparedness in which they felt unready, ready or very ready. As can be seen in Table 19 there were only two areas in which the faculty overwhelmingly believed they were very ready, and both were attitudinal: "willingness to participate in team planning" and "development of a commitment to an interdisciplinary approach." Approximately half of the group believed they were very ready in respect to "their skills in developing course outlines," "respect for cultural diversity among students" and "capacity to integrate societal issues into instruction."

All participants believed they were either very ready or ready in all of the ten areas of preparedness except one. The majority believed that the planning year failed to give them "the capacity to pre-plan imaginatively for plural pursuits by individual students." Apparently, helping students to design self-selected aspects of their own education is not within the usual repertoire of teachers, nor is it a concept or a skill readily picked up by instructors.

The planners and leaders of the general education program simply did not have the time to do as much as hoped for during their first year. This is understandable since they were also engaged in all the other aspects of launching a new college. Further, Los Medanos College was located during this time on the campus of its sister college, Diablo Valley College, which led to any number of scheduling and other problems for the faculty. Nevertheless, the inability to give more attention to planning the plural pursuits aspect of the general education program had negative results, particularly during the fall semester of the first operational year (1974-1975). More will be said on this subject later.

The responses to the question, "to what degree did the planning year influence your feelings of readiness?" are tabulated in Table 19.

TABLE 19

FACULTY SELF-RATING ON AREAS OF PREPAREDNESS

As a result of the planning year, I felt unready, ready, or very ready in respect to my:	No Answer*	Unready	Ready	Very Ready
skill in developing course outlines	2	2	11	11
skill in developing unit plans		2	16	8
willingness to participate in team planning	1		4	21
development of a commitment to an interdisciplinary approach	1	2	3	20
skill in preparing for large group instruction		4	19	3
respect for cultural diversity among students	6	1	8	11
awareness of ways to infuse cultural diversity into the curriculum	1	3	15	7
capacity to pre-plan imaginatively for plural pursuits by individual students	1	15	6	4
capacity to integrate societal issues into instruction	3	2	9	12
other teaching/learning strategies				1

*This column was added by evaluators.

It should be noted that most instructors scheduled to teach the general education courses were young, and in most cases, quite inexperienced. However, their confidence was not based on their simply not knowing what was in store for them. In the judgment of the evaluators the overwhelming preponderance of "very ready" or "ready" responses to most of the items identified above was an outgrowth of the fact that the majority of the general education faculty members were "Kellogg Fellows." Although mentioned in Chapter II, this calls for a further word of explanation.

Los Medanos College received a three-year grant (1973-1976) from the W. K. Kellogg Foundation to test a model of staff development. All faculty members who have either no teaching experience or limited teaching experience at the community college level are classified "Kellogg Fellows" and given reduced teaching loads and maximum help from a Professional Development Facilitator during their first year of employment. The Professional Development Facilitator, along with the four deans, offers a year of intensive professional development to the Kellogg Fellows. The Fellows are given three hours of released teaching time to compensate for 6+ hours of seminar and other work designed to make them into skilled and dedicated community college instructors. It was clear to the evaluators, after attending retreats and after interviewing the general education faculty, that the readiness of the Kellogg Fellows for the general education program was indeed high.

Self-ratings do not, of course, always jibe with ratings by others. Twelve faculty members said they were "very ready" and nine said they were "ready" in respect to "capacity to integrate societal issues into instruction." There was some question on the part of the evaluators (as a result of subsequent interviews) as to whether the faculty were in fact "ready." The president and some of the deans shared this concern. The evaluators strongly recommended that the deans explore with their respective faculty members the extent to which they are integrating societal issues into their instruction. To do so properly demands that instructors be analysts of the society and be able to relate their disciplines to the problems which their analysis reveals. This is an unending task, not one that can be completed in one year.

Other interesting and relevant comments from faculty members on the questions posed deserve mentioning. Two believed that the program did not help them to prepare to teach the 90-120 students assigned to generic course sections. Several said: "planning process had more to do with confirming a commitment to go with the program and to feel right and good doing it;" "really became aware of how unprepared I was--as we progressed I felt more ready but not yet skilled enough;" "too little attention given to the integration of societal issues into instruction--also much confusion about plural pursuits;" "planning year provided the opportunity to finally culminate those skills that were evolving."

Overall Accomplishments of the Planning Process

The aspirations for the planning process were large and diverse, covering major aspects of the whole learning/teaching equation. The planners said that they hoped for accomplishments in:

Curriculum: Identification of key concepts and generalization; societal issues and implications; production of course outlines for generic and discipline courses; development of materials and intradisciplinary approaches.

Instructional Strategies: Large group instruction; coordination of generic and discipline courses; use of plural pursuits to foster student autonomy; development of mediated instruction.

Evaluation Procedures: Measurement of affective as well as cognitive learning.

Interpersonal Skills: Team planning; sharing resources; giving and receiving feedback.

Personal Awareness: Cultural diversity and a world view; perspectives of minorities and women; special needs of students.

To get some measure of faculty perception of achievement of these aspirations after one year of planning, the following question was asked of general education faculty members: What do you believe, in terms of the above aspirations, have been the achievements of the planning process:

...for the institution

...for faculty and administrators

...for you personally?

The responses showed a strong belief that the most important aspect of the planning process for the college was in the most important area, namely, curriculum. The faculty generally believed that identifying key concepts, considering the implications for societal issues, exploring different interdisciplinary approaches, etc., "paid off." One said "an esprit de corps developed that probably would never have happened without the efforts expressed in the General Education Project." Others responded: "A greater degree of cross correlation between discipline courses that would not ordinarily be achieved--consequence: total curriculum hangs together;" "institutional image is one of cohesiveness;" "we made giant strides in finding ways to translate the ideas of general education into learning experiences for students."

There were some who believed that instructional strategies for large group instruction were slighted and that more attention should have been given to evaluation procedures. Both of these criticisms are undoubtedly valid. Teaching large groups is difficult and requires specialized instructional strategies. Evaluation is not a solved problem within education, particularly evaluation in the affective domain to which this whole project is pointed.

Probably typical of comments on the effect of the planning process on the institution was "amazing and most gratifying to behold! An entire general education curriculum spelled out in course outlines--uniform in format and reflecting shared goals--all concerned about the students' learning experience."

In response to "for faculty and administrators" there was a belief by many that there had been significant movement by both faculty and administration toward common objectives. Some faculty raised a cautious "we must be aware of what others are doing to avoid doing 'our thing' and avoiding duplication." Further, "we need more encouragement to visit other generic areas."

The following comments capture the flavor of the responses of the general education faculty to the achievements of the planning process for the faculty as a whole. "Undoubtedly the most important outcome for the Los Medanos College faculty is the free flaming spirit of sharing, helping and getting to know each other." "The planning stage forced people to give ground, give support and generally break down old disciplinary boundaries and territories." "Curriculum articulation has helped with the accountability of many aspects of the general education program." "I think the project helped draw people together--at least to where persons could agree to disagree, but let's not be extravagant or inaccurate; the process was not magical nor uncanny and there were real gaps and unresolved conflicts--and time misspent--BUT it was a gaining experience where individuals gained confidences, found strengths and shared." "The faculty were forced to come up with completed course outlines and damned if we didn't! We also learned to work with one another, to respect each other and to oppose each other. Administrators and faculty gained in commitment to general education."

The planners also wished to know what the achievements of the planning process were "for you personally." While there were as many different responses as there were respondents, it can generally be said that the majority believed that it gave them "the opportunity to work, plan and share with professionals." They were overwhelming in their desire to say that this was "a growth rewarding experience," "that personal awareness made us explore," "I am enriched as a professional," "I was challenged and it was invigorating."

There were many more comments that reflected what that first year did for them personally. A few more might be cited. "I could not teach a generic course successfully without having gone through the 'labor pains' of giving birth to the total curriculum and individual conceptual packages." "It has been an exciting growth experience for me in terms of new ideas--the opportunity to develop a new course that is meaningful to me--to rethink and reorganize other courses that were getting to be old hat." "I felt that I grew a lot--especially in the area of curriculum and instructional strategies. Kellogg, the communication among faculty and administrators have given me the strong feeling of flexibility--to be able to try for new things. It has been great! I am enriched as a professional and still feel that I have a lot to learn." "The most hard work, frustration and thoroughly exciting educational experience of my life. The working sessions in my area, the sharing of plans with other areas, the help in developing course outlines--all have made me feel that I'm becoming a hell of a lot better teacher than before--in a tremendously exciting professional climate."

"The regularity of the meetings, almost grindingly regular and uninterruptible, kept the issues in the center of my awareness." "Awareness of cultural diversity and minority issues."

The final questions asked were these:

...What do you judge NOT to have been accomplished?

and

...How might the planning process have been improved to bring about these accomplishments?

A complete summing up of the responses to these questions is not possible. However, the majority of participants raised concerns that might be grouped together under each of the following comments:

..."We need more direction in the planning for plural pursuits."

..."A cohesive working relationship with the Learning Resource Center--its operations, function and helpfulness."

..."Need more work on generic course, class by class and its relationship to the discipline class. We need more time for an honest, on-going, evaluation of the generic course."

..."We only talked in general about societal issues and had not spelled these out even at a full definition level--certainly not at a level to incorporate them in the course."

While there are other concerns, e.g., more integration with the non-general education faculty, scheduling problems, etc., the four issues articulated above are at the heart of the concerns registered by the participants in the General Education Project.

The evaluative comments, the issues and the problems raised in this chapter were all taken from the responses to the fall 1974 questionnaire covering only the planning year, 1973-74. In May 1975, after a year of actual operation, the outside evaluators conducted standardized interviews with both the general education faculty and the non-general education faculty. These provide the substance of the next chapter.

CHAPTER VIII

Impact of the Planning Process

At the end of a one-year trial Los Medanos College is not prepared to give a full-blown evaluation of the operational phase of the General Education Project. That will have to come later. However, it is not too early to begin to evaluate planning as it has been translated into operation. Interviews conducted by the outside evaluators in May 1975 assessed the impact of planning as perceived by both general education and non-general education instructors. It should be noted that this assessment is quite different from that reported in Chapter VII. Though many similar points are raised, the difference is that the questionnaire administered in the fall of 1974 measured the readiness for operation given by planning, while these interviews offer a beginning measure of the operational payoff itself.

The responses of the general education faculty will be given first--their assessment of the impact of planning on themselves, the program and the institution.

On the General Education Instructors

Without exception, all general education instructors interviewed said they believed that the overall planning efforts did indeed pay off. Of course some thought they paid off more handsomely than others. And of course they thought some phases of the planning process were more helpful than others.

Probably the most important single aspect was the weekly seminar. While admitting that time was often given grudgingly and that general sessions were sometimes called at times when area planning was more important, nonetheless, the faculty generally agreed that the weekly meetings were essential. They provided the one time when the parts could be related to the whole. They were an indespensable means of helping staff get organized. They made faculty members knowledgeable about fields outside of their own areas. The subject area meetings were, of course, an absolute must. It was here that faculty efforts really blossomed into curriculum. As one instructor put it: "Area planning is the heart of the program; if it stops the entire effort will suffer immeasurably."

Instructors' confidence in themselves and in each other seemed to have a spurt of growth at the retreats. At the Santa Cruz, the Boulder Creek, the St. Mary's and the San Domiano retreats faculty became better acquainted by observing what others were doing, sharing, learning and teaching. One faculty member's statement sums up the responses from nearly all of her colleagues: "without question, we never could have achieved the feeling of togetherness, the need for cooperation, the ideal of common purpose, the mutual respect for others and their opinions were it not for the development of the general education program through its retreats, seminars and area meetings."

The planning process also improve faculty members' ability to work as members of a team and resulted in their becoming more at ease with the governance structure of the college. "New ideas, new approaches, new strategies have given me a sense of strength as a teacher and as an individual" was an interview response which summed up the whole planning effort for more than this one faculty member.

Contacts with outside lecturers, speakers and consultants were of minimal value in the opinion of many of the faculty. "They didn't know our program," "They didn't know Los Medanos College" and "they didn't know us" were the negative comments. A few believed that more should have been done in the early stages to make the concepts of the program clearer.

From their interview statements it is safe to say that all faculty felt they had matured professionally and personally during the entire planning process. "The most hard work, frustrating and energy-demanding (task) I've ever encountered, BUT it is the most exciting educational experience of my life. The working sessions in my area, and the sharing of plans in other areas must contribute to the success of this educational venture"--so said one tired but enthusiastic instructor in the spring of the General Education Project's first operational year. While this point of view might not be shared by everyone, it is safe to say that most of the general education faculty would agree.

On the Program

As was pointed out in the previous chapter, the goals and aspirations for the planning process were many: 1) the development of a new curricular concept, 2) the development of new and innovative instructional strategies, 3) the development of interpersonal skills in dealing with the above and 4) the development of a personal awareness of cultural diversities, of ethnic and women's perspectives and of other student needs.

Naturally when goals and aspirations are as large and diverse as these, problems inevitably follow. The generic courses in each of the six subject areas were always team planned and sometimes team taught. Developing them demanded reasonable consensus on what is important enough to teach (content) and how to go about teaching it (strategies). Team efforts are difficult and often require head knocking as well as sharing, agreeing, disagreeing, demanding effort from others, giving in to others, hanging tough and so on. However, team efforts were indispensable to development of the generic courses. Most instructors believed that success in this effort had been achieved, that the most important and relevant concepts were identified for inclusion in the generic courses and that the methods of presentation developed by one teacher were offered for sharing by the others. A few believed that the team approach, while essential, might also stifle creative efforts on the part of individuals.

An important concern among all general education faculty and administrators was the interface with faculty members who are not teaching in the general education program. While efforts to avoid a split between these two groups have been successful to date, (faculty-wide retreats and the Kellogg Staff Development Project have helped mightily to erase this potential for split), a continued emphasis on the mutual dependency of general and special education must be made. The sharing of ideas, goals and objectives among the whole faculty is required for the continued success of all curricular efforts at Los Medanos College.

There was some diversity of opinion among the faculty as to the effectiveness of plural pursuits on the education of the students. As described earlier, plural pursuits often involved the non-general education faculty, and since at first they were not intimately acquainted with the notion, they were sometimes frustrated by students, seeking their help. Most faculty members said it was a promising approach but had some misgivings. Some comments should be cited: "needs more working at by the entire faculty;" "needs more depth in some projects;" "too many plural pursuits per student;" "needs better coordination between faculty and Learning Resource Center."

Complaint about lack of time was a major faculty criticism. Since so much was attempted in the first operational year, this criticism was valid, but the probability of its continuing to be a major concern should be lessened as the time devoted to general education planning and preparation diminishes. In this respect faculty members during the spring semester of 1975 showed improvement in handling the total task and showed particular improvements in their efforts to enhance the learning of students through plural pursuits.

Although most faculty members were impressed with the initial success of the team effort in the development of the generic courses, some registered concern about the future success of this effort. Some negative comments were: "too difficult, in my area, to make the generic course very meaningful"; "can't relate generic course to discipline course in a significant way"; "very difficult to bring new faculty into the 'generic mold' established by the first-year faculty"; "too much--or too little--work demanded by faculty"; "an incredible load to prepare for." As in the case of plural pursuits, the interviews reflected that the majority believed in the generic course concept and very much wanted it to work. More time and effort need to be given to its development.

Similarly, the majority of faculty members thought that ethnic and women's perspectives were being given full attention within the instructional program. A few indicated that this was being done "to such a degree that sometimes it is frightening." They were concerned about student and community "backlash." There was some evidence of student backlash, but it was not a serious problem, and there was no negative response from the community. It seemed that in general the perspectives of Blacks, Chicanos, Asians and of women were being included in most areas with a fair balance. Of course some fields lend themselves to these perspectives better than others. It has, for example, been more difficult for the physical and biological sciences to incorporate ethnic and women's concerns into their generic and discipline course even though the instructors wanted to do so.

The majority of faculty members registered belief that they were including significant societal issues in the generic and discipline courses. Quite a few instructors indicated, however, that they were experiencing considerable difficulty in developing a smooth and natural integration of these ethical issues into the subject content of their courses. They realized the need to ask for more discussions, more sharing and more help in using the content of the generic and discipline courses, to raise the societal issues and to suggest options for their solution.

On the Institution

Perhaps the section above on the impact of planning on the general education program has sounded more negative than positive. There are problems, and the task is not finished. Yet it was the sincere belief of the outside evaluators that the collective effort and the struggles during the years 1973-74 and 1974-75 have resulted in an esprit and a faith in self and in others that will shape Los Medanos College for years to come.

The evaluators found it significant that, with few exceptions, the faculty believed that efforts expended by all in developing the general education program had brought to the college a unity, a team approach and a shared aspiration that gave great promise for the future. When asked the question "does the general education program at Los Medanos College give it a 'spirit' that otherwise might not have obtained?" the answer by one faculty member was--"Four Stars!" While staff spirit does not equate with education there is that undefinable something that dictates that with the former, the latter becomes both more possible and more significant.

Up to this point, all the evaluative responses reported have come from the general education faculty. The evaluation of the planning process and its impact on the individual instructor, on the program and on the institution have come from the questionnaire completed by the general education faculty and the evaluators' interviews with the general education faculty. But what do faculty members who are not teaching in the general education program think of it?

The General Education Program as Seen by the Non-General Education Faculty

As a part of the evaluation of the general education program it was thought essential to determine the reactions, the ideas and the concerns of faculty members not teaching in this program. Interviews were organized to explore the following four areas.

1. The extent to which planning for the general education program resulted in institution-wide knowledge about the program.
2. Whether or not planning for the general education program had any effect upon the teaching of non-general education faculty.
3. Whether or not the planning process had any favorable/unfavorable impact on those not teaching general education courses.
4. The extent to which the program has been favorably/unfavorably received.

Number 3 above, the impact of the general education program on the non-general education faculty, will be treated more fully than the other three areas because it has more immediate and also long-term implications for the institution.

1. The extent to which planning for the general education program resulted in institution-wide knowledge about the program.

All believed that the retreats and the faculty meetings went a long way toward bringing everyone into the general education schema. The retreats were the most important factor in unifying these two groups. Through structured sessions, bull sessions and socializing the faculty became a whole. However, there were those among the non-general education faculty who believed that throughout the planning session the "career types," as they called themselves, should have been more involved. Not so oddly, those who wanted more involvement were those who were very familiar with general education concepts and the efforts to implement them. In this case, familiarity bred not contempt but rather a certain amount of envy, a feeling of being left out.

From the interviews the evaluators concluded that nearly every non-general education faculty member believed in the overall general education concept. However, most had serious questions about their inadvertent involvement in plural pursuits. They were not against being used as resource persons in students' plural pursuits but felt they had not been briefed properly on how they were to play this role. Further they felt their first contacts should have been with the general education instructors so that they would have been well oriented before students came knocking on their doors. A few also questioned the relationship of the generic courses to the discipline courses. Both of these concerns were based primarily on student reaction that they were hearing.

The non-general education instructors joined their general education colleagues in believing that the institution must continue to hold retreats--at least for the next year or two. Continuing dialogue about the general education concept is essential, they said. They also observed that the socializing fostered by retreats helped break down real or imagined barriers between the two groups. "Retreats helped in understanding one another and in tieing faculty together." "Retreats were very helpful in finding out what others are doing."

It should be pointed out that those non-general education faculty members who were Kellogg Fellows were very positive forces among their colleagues. Their year-long experience in the Kellogg Staff Development Program brought them closer professionally and personally to the Kellogg Fellows who were general education instructors. Actually, the majority of the instructors in the general education program were current or ex-Kellogg Fellows. This fact has been a very important factor in bridging the gap--if in fact there ever was a gap--between specialists and generalists.

2. Whether or not planning for the general education program had any effect upon the teaching of non-general education faculty.

Except for the Kellogg Fellows, it was generally agreed that the existence of the general education program had little or no effect upon non-general education teaching. However, some did indicate that in order to assist students in their plural pursuits they were obliged to gain more knowledge and more appreciation for the general education concept. They also had to branch out into areas of knowledge other than their own to make the interdisciplinary tie-in.

Working with students in plural pursuits and engaging in dialogue with colleagues at retreats has given the non-general education faculty a deeper appreciation for what the general education faculty is trying to do. This turned into a two-way street, particularly after one retreat devoted largely to "career education" programs. As a result, personal and professional relationships have developed at Los Medanos in a manner that wouldn't have happended in any other way

3. Whether or not the planning process had any favorable/unfavorable impact on those not teaching general education courses.

While the favorable aspects have been alluded to in the previous two sections, some will bear repetition. Faculty members teaching career education courses were impressed with and generally believed in the general education program. The retreats have been the most significant events during the past two years to bring this about. Interaction with colleagues has helped to prevent the schism so frequently found among so called "voc tech" and "general ed" instructors.

Other reasons for their appreciation for the program are cited. Among them is the fact that the general education faculty have tremendous enthusiasm. "They are a gung ho young faculty"--was the way one not-so-young faculty member described them. Further, they believed that administrative leadership has given the entire faculty a feeling of oneness. Again, the Kellogg Program was seen as a very important factor in bringing about a healthy relationship among the whole faculty as well as an appreciation for the educational approaches used by the general education faculty.

The evaluators were impressed with the symbiotic relationship among several programs and facets of Los Medanos College. It has already been mentioned that the Kellogg Staff Development Program supported the General Education Project, but it should also be mentioned that the planning, the curriculum development, the discussion of learning strategies and teaching tactics which were all a part of the General Education Project became grist for the mill in the Kellogg Program. This same mutually supportive relationship existed between the Los Medanos Governance Model and the General Education Project. The Advisory Clusters became the communication links and the forums for keeping everyone abreast of what was going on in the General Education Project.

As noted briefly in Chapter II, the Los Medanos College faculty are assigned to six advisory clusters. They are grouped in an interdisciplinary manner, with student and administrative representatives sitting in each group. They meet three or four times per month to discuss and to recommend policies, curriculum and any other significant college governance matter. The cross-cut membership of these advisory clusters, plus the fact that Los Medanos College has neither departments nor divisions, means that everyone has a voice in everything that is going on at the college. The non-general education faculty have said that while clusters have no direct relationship to the General Education Project, they are, nontheless, a very important reason why the excellent relationships exist between the "two faculties," between faculty and administration and between students and staff members. By virtue of these relationships they do have a tangential connection to the General Education Project.

Before describing their concerns, perhaps it would be well to give some positive quotes from non-general education faculty: "I was originally negative on plural pursuits, now I'm very positive"; "this faculty is the most dedicated I've ever seen"; "I very much believe in the general education program but do hope that the administration conducts follow-up studies with former Los Medanos College students, transfer and non-transfer--as to the value of the education received"; and lastly, "what made the general education program 'fly' was the tremendous enthusiasm, dedication and work of the general education faculty and administration."

As favorable to the program as these faculty members were, they, like some of their colleagues teaching general education courses, had some very legitimate concerns. They believed that more work needed to be devoted to clear definition of plural pursuits and the generic courses. While agreeing that in the second semester of the first operational year there was less confusion regarding the plural pursuits, they also believed that the general education faculty were not all saying the same things to their students, nor were they demanding the same effort from them in their plural pursuits. Two or three believed that some general education faculty members have devoted too much time to ethnic perspectives--particularly the Black perspective. A couple believed the same regarding time spent on women's perspectives. A few believed, from what they have heard from general education faculty and students, that the generic courses required too much effort. They thought this was particularly true in light of the fact that the generic courses only carry one unit of academic credit.

Here are some pertinent quotes from individual instructors: "Confusion reigns--need more information--maybe a General Education Handbook?"; "somewhat familiar with general education program but need more--can't advise my students as well as I'd like"; "I'm totally ignorant on general education--I can contribute little"; "not enough in-depth study being given to ethnic perspective but I'm not in favor of 'separatism'"; "because of the general education meetings I feel left out of something very important--but maybe it's our fault"; "at first I was offended by the separation of general education and non-general education (general education higher plane?) but, as time went on, I felt less and less so. I believe I have something to give to the general education faculty and the general education program."

4. The extent to which the program has been favorably/unfavorably received.

Generally the non-general education faculty agreed that it was too early to evaluate the educational impact of the general education program on students. Time must pass to "iron out bugs," as one given to the mixed metaphor said, and to allow students the exposure necessary for the continuity of the program to have its effect. However, they were asked to comment and they did.

They raised the ever-recurring question of proper scheduling. Some said that they encouraged students to accompany their specialty education with general education. But scheduling conflicts were so overwhelming that many students were denied that opportunity. Whether or not this was a widely-felt problem, the administration acted upon it. In May 1975 they instituted discussion of other scheduling systems and did in fact come up with a different format for the fall 1975 semester.

Many non-general education faculty believed that some students enrolled in the general education program were frustrated, bewildered and angry at the amount of time and effort involved. They judged that the students weren't sold because they didn't understand. They reported that in the second semester the student complaints were fewer and less vociferous, yet that they did continue. Comments by individual non-general education faculty quoting students might be of interest here: "Plural pursuits are a drag"; "too many plural pursuits"; "the generic class sizes are too large"; "students can't put it all together--particularly the younger students"; "many students favorably impressed with the general efforts--particularly after a delayed response." It may well be that the last quote will portend the future, as the "two faculties" continue to engage in dialogue, share ideas and play off biases, agree and disagree and show the mutual respect they have so far impressively shown for both special and general education.

Evaluation by questionnaires and in-depth interviews have been covered. But there are other facets of evaluation, less systematically related and admittedly more impressionistic, that need to be addressed in the next chapter.

CHAPTER IX

Other Aspects of Evaluation

Chapters VII and VIII reported how faculty members perceived the planning process of the General Education Project. This chapter will shift the perspective from that of the faculty to that of the evaluators--and, in a section on the generic courses, to that of the students.

The evaluators had eyes to see and ears to hear, hence were not completely reliant on how others saw or heard. Of course they observed what was obvious. The project called for weekly seminars and periodic retreats, and the evaluators can attest to the fact that these in fact met. The project called for resource people as consultants in curricular planning, in international perspectives, in cultural pluralism, etc. The evaluators can attest to the fact that reputable consultants were engaged and did bring valuable information and insights.

Some other observations were not so obvious; yet at a subjective level they were discernable. For example, the esprit de corps that developed among most of the general education faculty members was almost palpable. Further, it was easy to see that instructors from diverse disciplines were seriously talking to each other about what deserved to be taught and how to teach it--an uncommon phenomenon in most colleges. Still another example: it was apparent that the administration was sensitive to and took steps to skirt the danger of splitting the faculty into two camps by heavy emphasis on the general education program. A division into the we (general education) versus the they (career education) was to be avoided. The point is that the evaluators were often participant observers and could see, describe, count, check, think about and feel. And all of what they took in, objective and subjective, becomes legitimate data of evaluation. Attention will first be focused on an objective factor.

Course Outlines for Generic and Discipline Courses

The project promised intradisciplinary team planning toward development of a general education curriculum. The tangible outcomes of curriculum development are course outlines: the highly structured contractual statement of overall goals, learning objectives, basic content, learning strategies, teaching tactics and resource materials. It was an obvious, simple, yet revealing task for the evaluators to check whether these outlines were adequately prepared. The fact was that at the end of the first year of planning and before any class was taught there was on file in the president's office a fully elaborated outline for every generic and every discipline course. Examples drawn from language arts are presented in Appendices 1 & 2 to show the format used and to give the flavor of the generic and discipline courses within one intradisciplinary area.

A drawerful of course outlines is evidence that the work got done, but the outlines are mute on all the struggles that went into their making. The evaluators observed enough of the process to know that it was not easy. Imagine a faculty, some with many years of experience, some with limited experience, some with no experience, a faculty with diverse educational backgrounds, a faculty coming from widely differing life experiences, a faculty with heterogeneous ethnic, class and cultural roots, a faculty whose teaching experience and/or academic training gave them a mind-set and a dedication to "their" disciplines, a faculty new to each other and still struggling for role definition--imagine such a faculty meeting weekly to talk through to reasonable consensus what was worth the teaching and how it was best to be taught. No, it was not easy. But it was the evaluators' subjective judgment that all of the potential negatives were to greater or lesser degrees overcome because most of the participant faculty were philosophically committed to the concept of general education, and were philosophically convinced that the intradisciplinary approach was the best way to go. To be sure, there were a few who either remained skeptics or became skeptics, and that is a problem still to be resolved.

In comparing the course outlines of the generic courses with their respective discipline courses, the evaluators acknowledged what one faculty member described as "the necessity to work more diligently in relating the content of the generic courses to the discipline courses." This is an unfinished task which will probably always be ongoing. It would be impossible to coordinate content and sequence completely and once and for all. Yet the course outlines did reflect a significant team effort in the generic courses and significant success in achieving the project goals of demonstrating the unity of knowledge and moving toward cultural pluralism and a world view. The course outlines also made clear to the evaluators that the project was more successful in coming to grips with the societal issues of racism and sexism than any other of the major societal issues that put this nation and indeed the whole world in jeopardy.

Cultural Pluralism in Staff Selection

Another objective of the project that lends itself to easy and objective checking is that of cultural pluralism in staff selection. The implicit logic here follows, of course, from the defensible assumption that if more Black, Chicano, Asian and women instructors are hired, they can be depended upon to infuse ethnic and women's perspective into the curriculum.

From the moment of decision to adopt this general education model, Los Medanos College deliberately set out to select a faculty that would assure balance in ethnic and women's perspectives. The grant from the Kellogg Foundation for staff development made this selection process feasible. Young faculty members from various ethnic cultures and young women (White or non-White), who were qualified by virtue of their educations and/or life experiences, but with either limited or no teaching experience, could be, and were, hired as Kellogg Fellows. It was a high-risk decision, but how else can past inequities be righted and future inequities be prevented?

Not all of the general education instructors were Kellogg Fellows, but 16 of the 29 were. Of these 16, only 3 were White males. In the first operational year, the sex division among the 29 general education instructors was 16 men to 13 women. This means a ratio of 55 percent: 45 percent. If this is compared to the sex ratio in Los Medanos College student enrollment (51:49), it is seen that women faculty members were still not quite fairly represented. However, if it is compared to the sex ratio within the pool of qualified applicants (60:40) then the corrective bias of the selection becomes very apparent. It is even more indicative of the Los Medanos College commitment to compare the results of its hiring practice to those of other San Francisco Bay Area community colleges. The percentage of women among the total instructional staffs at these colleges averaged out at 28.5 percent.

The commitment to ethnic representation is equally strong. Eleven of the 29 instructors teaching general education courses during the first operational year were from ethnic minorities. This represents 38 percent, whereas the ethnic minority proportion of the student population was less than 25 percent, and the percentage of minority instructors in other Bay Area community colleges only 12.3 percent. It might be of interest to add that the three-way breakdown among the ethnic instructors was 6 Blacks (21 percent) 3 La Raza (10 percent) and 2 Asian (7 percent). The discrepancy between Black and La Raza probably reflects the fact that more Blacks than Chicanos are within an emerging from the pipeline of preparation (the universities). The distribution by sex and by ethnicity within the four administrative areas is given in Table 20.

TABLE 20

DISTRIBUTION BY SEX AND ETHNICITY OF GENERAL EDUCATION FACULTY

	Male	Female	Black	La Raza	Asian
Natural Sciences	3	2			1
Language Arts/Humanistic Studies	7	5	2	1	1
Behavioral Sciences	3	4	2	2	
Social Sciences	3	2	2		
Total	16	13	6	3	2

From Cultural Pluralism to World View

Probably the most ambitious goal of this general education program is to foster a world view in the minds of Los Medanos College students. Achievement of this goal would be difficult to measure even if there had been a five--or more--year accumulation of student sample. With only a one-year freshman class it was impossible to measure other than by inference.

From course outlines, from course reading lists, from films, records, pictures, etc. it could be inferred that students were exposed to a broader world view. Some examples: the listening required in the general education course in music drew from India, Japan, China, Africa, the Near East and from American Indians as well as from the usual source of Western Civilization; philosophy included Lao-Tse and Krishna just as it included Socrates and John Dewey; Oriental, African and La Raza art were part of the viewing done by all students in art appreciation; the literature courses were all world literature courses and were not segmented into American literature or English literature or European literature; the anthropology and astronomy instructors collaborated on a planetarium show which illustrated the myths of creation throughout the world, with the Judeo-Christian and the scientific myths only two among a dozen others. Other examples abounded, yet it could not be concluded that all general education courses exposed students to a widening world view. Such exposure remains a goal toward which much more thought and effort will have to be applied.

In the conceptualization of this general education program perhaps the assumption was made that the faculty members themselves would all come with well-developed world views, which they would readily transmit to the students. It was the impression of the evaluators that the ethnic diversity within the faculty was remarkable, and that they were teaching each other and their students to be accepting and appreciative of cultural pluralism. This may represent the intermediate step toward a world view. Yet, it is also true that first-generation college graduates, who have usually had to struggle and work their way to the professional ranks, are not noted for their depth and breadth of sophistication. The assumption that faculty members come with a world view is only true in varying degrees. If a college aspires to generate a comprehensive world view in the minds of its students, it must also work unceasingly to generate an ever-expanding and clarifying world view in the minds of its instructors. This can be achieved by a formal program of staff development and by establishing a prevailing attitude of approval and reward for those who break free from the parochialism in their lives.

A world view is certainly not a necessary result of world travel, yet for people with any openness of mind, world travel does help. Teachers as a professional group are known for travel and too much weight should not be given to this point, yet it is a fact that this young (also read low on the salary schedule) faculty did an inordinate amount of travel in the two-year period of the General Education Project. Mexico, Central America, South America, India, China, Africa and Western Europe were all on the itineraries of this peripatetic faculty. It was the hope and the expectation of the evaluators that travel by some will stimulate travel by all, that the "travel bug" will be catching.

Some Impressions of Seminars and Retreats

Each Wednesday afternoon the general education faculty met from 4:00 pm to 6:00 pm. The meetings began in September 1973 and continued through May 1975. In addition to these two hours per week for some 72 weeks, the instructors met innumerable hours in unscheduled, sub-area planning sessions. It was no wonder that after two years the general education instructors knew each other very well and radiated the impression of high sensitivity to their colleagues, eagerness to learn from each other and willingness to continue to work together. The Wednesday afternoon seminars were used not only for team planning but also for critiques of the generic class presentations.

Since it was part of the plan and since they had lost most of their fears about each other, instructors sat in, or participated in, each other's generic classes. That in itself was a breakthrough, for most college instructors never have an opportunity to visit each others' classes and to have direct feedback from colleagues about what was taught and how it was taught.

In the early phases of the planning process, the seminars were meetings of the whole general education faculty. It took some time just to get clear in everyone's mind the dimensions and the complexities of the general education model. Also during the first year the seminar leaders were still impressed with the value of outside consultants, some of whom the faculty later rated as very valuable and some of whom they rated as poor.

To some extent the instructors were a little resentful of the general sessions since they knew they were soon going to have to face 90 to 120 students in the generic sessions and were desperate to settle with their colleagues on objectives, content, resource materials and methods of presentation. In the second year, the operational year, they wanted to meet in small group sessions to do the detailed, last-minute planning for the upcoming generic sessions and also wanted critiques on the last sessions and to talk about tie-ins with the discipline courses.

Even so, most of the meetings of the whole were important and the faculty knew it. They were particularly appreciative of the contributions of Dr. Chester Case, the Professional Development Facilitator. It was he who developed the format of the course outlines and gave group and individual assistance in thinking through and structuring these outlines. It was also Case who taught the group how to brainstorm, how to percolate the contents of the several disciplines for their generic commonalities, and then how to extract these for the generic courses.

As can be inferred from this discussion of the weekly seminars, major attention and most of the time was spent on generic courses. That is understandable since they were the furthest from the instructors' experience and loomed most formidable. But the point is also offered as a criticism. Failure to spend sufficient time on the discipline courses resulted in their being more traditional and less innovative. Further, it resulted in less coordination between the generic and the discipline courses, and coordination is, of course, a major objective in an intradisciplinary package.

Retreat houses in Santa Cruz, Boulder Creek, Saint Mary's College and San Domiano were all used as locales for faculty retreats. Three of these were two or more days in duration, and only the one at St. Mary's College was a one-day stand. At first it seemed reasonable to restrict the retreats to the general education faculty, but experience proved otherwise. As a matter of fact the fourth retreat at San Domiano was used primarily for the non-general education faculty to tell the general education faculty about their own programs and how general education could be better related to special education.

These retreats brought value far in excess of their cost and in ways which were not fully anticipated. They welded the general education faculty into a working unit. Instructors from different cultural backgrounds lost their strangeness to each other and became individuals, instead of types in a category. Instructors who were essentially strangers ate together, worked together, drank together and had fun together, and in this process, colleagues became friends. The long blocks of time allowed for real sharing of ideas, for arguing out the relative importance of subject matter, for developing learning strategies and for testing out teaching tactics on each other, and finally just for structured and unstructured bull sessions on Los Medanos College and the validity of its goals and objectives. The retreats involving the whole faculty played a most important role in forestalling the we-they split between general education and career education instructors. These later retreats, particularly the one at San Domiano, in which the non-general education faculty presented a "show and tell" about their programs, made the general education faculty more cognizant of what their colleagues in career education were doing and gave the non-general education staff insights into what the generic courses, the discipline courses and plural pursuits were all about.

Staff Evaluation of Generic Courses

The whole notion of generic courses is that subject disciplines are not unique but cluster into families and that within any one family there are common concepts, principles, theories, etc. The very fact that generic courses were planned and taught was beginning evidence that this notion was sound. However, the course outlines for the generic courses did not always bring commonalities into sharp focus. This concerned the president, so he asked the deans to have instructors in each area extract and articulate the concepts and generalizations being taught in their respective generic courses. The results of this effort have been discussed in Chapter IV, The Generic Courses, and illustrated in Table 12.

It is mentioned again here because evaluation of this project was seen as "action research"; hence when the president's evaluation gave a new lead and it was followed, even though it was not within the original evaluation design. From studying the efforts of each of the six general education areas, the evaluators concluded that common concepts and principles do exist, that they can be articulated and presumably can be taught. It was apparent to the evaluators that some areas had more difficulty in articulating commonalities than others. The sciences, for example, seemed to render common concepts and principles quite easily. In language arts, a field in which instructors had not been taught to think along these lines, the task was a difficult one. As a matter of fact, the process in language arts, humanistic studies and behavioral sciences resulted in a new insight, to wit, that common attitudes, common values and common belief systems were being taught as much as common concepts and principles. The conclusion emerged that if affective aspects are being taught--which they are--then instructors need to be consciously aware that they are. Students need to be honestly told that teaching is as directed to affective learning as it is to cognitive learning. And instructors need to devise ways of assessing and grading the affective learning that is taking place.

Student Evaluation of Generic Courses

The plan for evaluating this general education model called for "laying the groundwork for later evaluation of student development in terms of the program's objectives." The one-year operational phase was not long enough to warrant any substantial effort toward evaluating the program's impact on students. However, the evaluators and staff recognized that beginning a long-term evaluation of this impact was the next order of business.

This will not be easy, for even when valid instruments for measuring learning are devised, it is always difficult to establish cause and effect. None of this was attempted for the first-year students. The only involvement in student evaluation was a modest attempt to get at reactions to the generic courses. In the closing week of the spring semester 1975, students in all generic courses except humanistic studies were asked to respond to six multiple-choice questions. The questions and the percentage of students responding to each choice are reported in Table 21.

TABLE 21

STUDENT EVALUATION OF GENERIC COURSES BY AREAS

Question 1: My general feeling about this course is:
(A) very positive
(B) positive
(C) no feeling one way or the other
(D) negative
(E) very negative

Area	Total Response	Choice A	Choice B	Choice C	Choice D	Choice E
Behavioral Science	195	12%	46%	22%	13%	7%
Social Science	189	27%	44%	14%	11%	4%
Language Arts	205	15%	56%	18%	8%	3%
Biological Science	102	13%	37%	20%	19%	12%
Physical Science	177	14%	37%	24%	21%	4%

Question 2: The goals of the course (what was expected of me as to what I was supposed to do and supposed to learn) were:
(A) very clear to me
(B) clear to me
(C) neither clear nor unclear to me
(D) unclear to me
(E) very unclear

Area	Total Response	Choice A	Choice B	Choice C	Choice D	Choice E
Behavioral Science	197	19%	51%	20%	9%	2%
Social Science	191	30%	51%	13%	6%	1%
Language Arts	205	15%	59%	19%	6%	2%
Biological Science	99	18%	44%	14%	20%	3%
Physical Science	158	18%	44%	24%	13%	1%

TABLE 21
(continued)

Question 3: In regard to the syllabus, the handouts and other readings for this course, I can honestly say:

(A) I always read what was assigned
(B) I usually read what was assigned
(C) I sometimes read what was assigned
(D) I rarely read what was assigned
(E) I never read what was assigned

Area	Total Response	Choice A	Choice B	Choice C	Choice D	Choice E
Behavioral Science	195	46%	34%	16%	3%	2%
Social Science	189	23%	44%	21%	11%	1%
Language Arts	203	23%	29%	19%	18%	11%
Biological Science	100	21%	40%	27%	7%	5%
Physical Science	159	16%	40%	28%	13%	3%

Question 4: When I left each presentation, the concepts, generalizations, principles and attitudes the instructor was trying to get across were:

(A) almost always clear to me
(B) usually clear to me
(C) sometimes clear to me
(D) rarely clear to me
(E) never clear to me

Area	Total Response	Choice A	Choice B	Choice C	Choice D	Choice E
Behavioral Science	196	21%	43%	29%	6%	2%
Social Science	188	34%	42%	18%	4%	2%
Language Arts	206	24%	52%	22%	19%	
Biological Science	99	26%	39%	23%	9%	2%
Physical Science	167	29%	43%	25%	4%	

TABLE 21
(continued)

Question 5: The statement that most closely fits my feeling is:
(A) I enjoyed the presentations and learned a lot
(B) I enjoyed the presentations but didn't always learn much
(C) I usually learned something, but I didn't especially enjoy the presentations
(D) I didn't learn much and I didn't enjoy the presentations very much.

Area	Total Response	Choice A	Choice B	Choice C	Choice D	No Choice E Given
Behavioral Science	185	30%	39%	16%	11%	
Social Science	189	49%	23%	26%	2%	
Language Arts	208	39%	42%	13%	6%	
Biological Science	98	34%	32%	24%	10%	
Physical Science	167	36%	39%	15%	10%	

Question 6: To me, the connection between the generic course and the discipline course was:
(A) very clear and consistent
(B) mostly clear and consistent
(C) no opinion one way or the other
(D) mostly unclear and inconsistent
(E) very unclear and unconsistent

Area	Total Response	Choice A	Choice B	Choice C	Choice D	Choice E
Behavioral Science	131	15%	39%	19%	15%	5%
Social Science	189	31%	38%	15%	13%	3%
Language Arts	206	13%	39%	24%	13%	11%
Biological Science	104	28%	28%	28%	11%	6%
Physical Science	165	22%	40%	18%	16%	4%

While these student responses do not add up to "rave reviews" for the generic courses, the fact that the majority of students responded favorably (Choice A or Choice B) to all questions seems encouraging, particularly for the first-year attempt. It appears that the generic courses in biological and physical sciences did not yet enjoy an overwhelmingly positive image. Almost half of the students in language arts were not doing the reading they were assigned. All areas did a reasonably good job in making the course goals clear to the students, with the social sciences having the highest record in this regard. Language arts appears to have had the greatest success in clarifying the common concepts, generalizations, principles and attitudes for the students, which seems odd since the instructors in this area experienced the greatest difficulty in extracting and articulating these commonalities. Two thirds or more of the students in all areas admitted that they enjoyed the highly mediated generic presentations while not being nearly so sure they had learned much from these presentations. The most consistently negative response concerned seeing clear connections between the generic courses and their respective discipline courses.

As a final note it should be repeated that this evaluation was essentially directed at the planning process and the effect of the planning process on the faculty. The full impact of the general education program on students has yet to be measured. The soundness of conceptualization and the progress to date on this project seem so promising that full-scale evaluation addressed to the impact on students is certainly warranted. It should begin in 1975-76 to capture the first sophomore class and should be a continuing aspect of the general education program.

CHAPTER X

Problems and Further Developments

In the building of this general education model there was always some apprehension that the word "model" would sound pretentious. The term was used as a noun but the dictionary definition as a verb was closer to what was really meant: "to work into shape." It was never considered as "representation of designed or actual object proportioned in all dimensions." It was not "proportioned in all dimensions" and there is and will continue to be a need "to work into shape." In this last chapter the unfinished work, as seen at this moment, will be described and the next order of business will be indicated.

Curricular Evaluation

Community colleges have traditionally set great store on the evaluation of instructors. This is as it should be since how an instructor teaches is part of the learning equation. However, another part of that learning equation is what is taught. In the latter regard, colleges have been more inclined to settle for general agreement on course titles and then to give the instructors the academic freedom to determine the content within that title. Such latitude is not possible in a curricular model that is interdisciplinary in goal, that was initially team planned and whose success remains dependent upon linkage between the generic and the discipline courses. Therefore there is an institutional mandate to periodically evaluate and revise the course outlines. This is being done systematically in this the second year of operation of the general education program. As a matter of fact, it is being done with non-general education courses as well as those in general education. It is being done by a team which includes the dean of the area and those instructors who teach that course or who teach courses directly related to it.

This evaluation and revision of course outlines is one way of institutionalizing the team planning of curriculum. However, it is a periodic rather than an on-going process. During the two-year grant, the planning year and the first operational year, the general education instructors met weekly for team planning and team critiquing. Under the terms of the grant, they were paid an honorarium for at least two of the many hours spent each week in this task of curriculum development. The point is that the need is still there while the grant money is not. These instructors teach an average of 16^+ hours per week and, by virtue of the democratic involvement called for by the Los Medanos College governance model, spend another two or three hours per week in essential meetings. Some way beyond overburdening instructors needs to be found by which a return could be made to the weekly two hour planning and critique sessions. Time is needed for total group sessions and time is needed for subject area sessions.

The commonalities to be taught in each generic course (concepts, principles, generalizations, theories, attitudes and values) were arrived at by brainstorming among instructors who would teach that generic course. This was probably as good a beginning way as any to answer the questions "What deserves to be taught?" and "What applies to all discipline courses within this area?" However, in the philosophic considerations this point was made: "The judgment on what is important enough for all to learn has to have input from those who are most knowledgeable in various fields (scholars), from those who will do the teaching (educators), and from those to whom the teaching is directed (students)." So far, the input has only come directly from those who will do the teaching. What is needed now is a critical review of generic course content by scholars in the respective subject areas. Los Medanos College is a member of a Bay Area consortium of colleges and universities. This would be an excellent resource agency to which to turn for validation, or correction, by scholars of present generic course subject matter. As to student input, more will be said on this in the section on Continuing the Evaluation.

The critique by scholars needed for the generic courses is also needed for the discipline courses. Here, the question should be "What is the absolutely essential content that has to be taught?" Too often, discipline instructors think that everything they ever learned about their discipline has to be at least introduced. This is patently impossible, particularly when they are obliged to spend some time in the discipline course tieing the threads from the generic course and also taking roughly one third of the time for plural pursuits. Of course both of these endeavors contribute directly to the objectives of the discipline course yet some instructors, still burdened with a mind-set of a traditional discipline course, continue to feel derilict in their coverage of content. They need reassurance that judgment of coverage should be based upon the total package (generic plus discipline plus plural pursuit). Or if highly respected consultants agree that essential content is being short-changed, then the whole issue should be thrown open for re-thinking.

Curricular Developments

The planning of generic and discipline courses made the general education instructors more sharply aware that they were often as intent on affective learning as on cognitive learning. Their thinking and their experience made them receptive to recent research that memory of facts is soon eroded away by time. It is pattern of thought, it is process of learning, it is emotional conviction that has longevity. If this is granted, then the question comes to be how does one teach for patterns of thinking about content, for process of learning, for emotional impact? A second question follows hard upon the first: how does one evaluate for molar patterns not details of subject matter, for process not product of learning, for emotional not cognitive components of knowledge? Hopefully, instructors are going to find their own answers within the process of staff development and that is what makes staff development so exciting. University professors may get their professional rewards in the generation of new knowledge. Community college instructors may get their professional rewards in the generation of new ways to transmit understanding. Who is to say which is more important?

The linking of the generic course to the discipline courses and discipline courses to the generic course is an essential part of this model. The generic course is not self-contained and does not have an internal logic independent of its discipline courses. If the linkage is not connected it is left floating as a collection of abstractions. The discipline courses, if not linked to the generic, are either heavy with redundancy or have gaping holes at the higher levels of concept, principle, theory, etc. The tie-ins have to be made at both ends.

More has to be done to assure that this linkage is made. The instructors in the discipline courses have to introduce and make relevant that which will next be taught in the generic course. In turn, the generic course instructor is obliged to make vivid the implications of each concept for the respective disciplines. Then in the class following the generic presentation, the discipline instructors need to cinch the connections by pointing out the revelancy of the generic material to present or future content in the discipline course. This may sound heavier with connection than it actually is. The preface to the generic content can be made in the last five minutes of the discipline class. The implications for the disciplines can simply be the illustrations used by the generic instructor to vivify the concepts being taught. The recap of the generic content can be the five minute opener of the next discipline class meeting. This is the price of intradisciplinary teaching and it may be the price of any good teaching. To use the maxim of the architect Ludwig Mies van der Rohe, "Less is more." It may result in more understanding to teach less but to make more connections among those things being taught. Typically, students fall down in their learning when instructors fail to provide bridges from one idea to another. It is the connection which makes the sense.

One of the goals of this general education program is to help students develop a world view. This term is used in the sense of an international perspective rather than a philosophic frame for viewing the world, i.e., *Weltanschauung*. Perhaps its meaning in this curricular model falls between these two definitions for it does imply a purposeful interjecting of the non-Western to compensate for the traditional orientation to Western Civilization. It also implies on acceptance of the philosophic assumption that survival depends upon seeing and identifying self as a member of the human family living in an interdependent and fragile world.

Whatever the definition, world view can come from two sources within a college, from the faculty and/or from the curriculum. One can compensate for the other. If the faculty's own education and experience is still a bit parochial, this can be balanced by an insistence that the content of the curriculum (the pattern of courses, the course objectives, the units covered, the reading material, the sights and sounds of the media, the outside speakers) be weighted toward the non-Western in order to achieve a balanced world view. At the same time, the staff development program of the college should be geared toward expanding the faculty's world view. Both of these sources are being developed at Los Medanos College but since curriculum modification is more immediate and less subject to the vagaries of individual differences it should take precedence.

Societal Issues

There was a vague if not faulty conceptualization of how societal issues would fit into this general education model. The first part of the reasoning was accurate enough, i.e., students need to know the nature and magnitude of the problems they face if they are to properly design their education to help solve them. However, it was never made clear where and from whom they would get a structured picture of these societal issues. There were some hazy statements about how generic course instructors would use societal issues as illustrations to demonstrate the relevancy of what they were teaching. There were equally cloudy references to how discipline course instructors would show how the knowledge they were teaching had implications for societal issues. In retrospect it is apparent that both of these assume that students come with fully developed knowledge of these problems or that students are getting a highly structured treatment of these issues from some other source. The first operational year demonstrated that neither of these assumptions was valid. Actually, most general education instructors made a valiant effort despite this poor conceptualization and on treatment of the problems of equity by race and by sex were eminently successful. On other issues the treatment was more spotty and the success more dubious.

The societal issues number far more than those of race and sex and some touch directly upon survival--"survival of humanity, survival of the social order, survival of the earth upon which humanity abides." Most social analysts would agree that if the following is not a definitive listing it at least illustrates the jeopardy which the on-coming generation faces:

The threat and the magnitude of nuclear war
The limits of national sovereignty in a nuclear age
The physical and psychological effects of population inundation
The possibility of irreversible ecological disaster
Finite natural resources and the collapse of materialism
The "haves" and the "have-nots": Redistribution of the world's goods
The role of the United States in a post-Vietnam world
The erosion of credibility and faith in the democratic model
The loss of nerve, confidence and program in the Western World
The national malaise: Alienation and illnesses of the spirit
The loss of conscience and the dimming of outrage toward evil
Crime, terrorism and anarchy: The collapse of order
The limits of science and technology
Toward equality of sex
Pluralism in race, culture and life style
The search for a new ethic and new values in a changing social order.

These societal issues are a heavy burden to load on to students. They require accurate definition, a marshalling of evidence to demonstrate the gravity of each, and, if utter depression is to be avoided, a full presentation of the options for possible solution. Seen in this light, it is obvious that they cannot get full explication in the generic courses. It is equally obvious that there is neither time nor systematic way to assure their coverage in the discipline courses. The instructors themselves need a thorough run-down on these complex issues. They need help from experts in seeing how their disciplines relate to the various issues and to the options open for possible solution. The best that can be hoped for in the generic and discipline courses is for instructors to know these issues well enough for them to relate the knowledge they are teaching to these societal issues. Actually, this flow of implications can and should go both ways: the implications the knowledge being presented has for the societal issues and the implications the societal issues have for the knowledge being presented.

If it is admitted that a highly structured presentation of the societal issues cannot be accomplished in the generic and discipline courses, then how should it be done? It is proposed that the following be conducted as an experiment during the academic year 1976-1977. Offer a 1/2 unit course meeting every other week at noon on Wednesdays (College Hour) in which experts define each of the societal issues, marshall the evidence of their gravity and give options for possible solutions. Needless to say, these authorities on each issue would need to be lucid and compelling speakers. Their lectures would be presented in the gymnasium/auditorium to accommodate perhaps 500 or even 1,000 students. This series of 16 to 18 lectures would really add up to a year's course (one unit) and would be highly recommended (if not made a concurrent prerequisite) for all freshmen enrolled in any area of the general education program. To make the all-too-short lecture hour really pay off, a compilation of readings on the societal issues would be assembled for the students' preparatory reading. The general education instructors would meet with these experts at 1:00 p.m. after the Wednesday lecture for a seminar on how the knowledge in their respective fields relates to the societal issue. These would be Professional Staff Development seminars led by the Professional Development Facilitator, Dr. Case, and together with the preceding lecture would earn professional growth credit on the salary schedule for participant faculty members.

Plural Pursuits

The confusion and resultant criticism of plural pursuits that welled up during the first operational semester sapped conviction of their worth and made supporters cautious. In the second semester much of the confusion subsided and the instructors who had seriously tried to make the idea of plural pursuits work found that it did work. Some of the student projects were arresting in their creativity and quality and often these were done by students who were not typically "good students."

The demonstrated value of plural pursuits argues for becoming more insistent that time and effort be allotted to them. Colleagues and administrators should become less tolerant of those few instructors whose indifferent or unimaginative approach makes it more difficult for other instructors to hold their students to the mark. One way this firmer stance can be institutionalized is to develop a bare-bones standard handout which tells students what plural pursuits are, what are the parameters of acceptability of projects, what is the calendar of expectancies, what are the available resources, to whom can they turn for help, how the small group sessions will be run and how they will be evaluated on process and/or product. To this standardized handout can be added any variation peculiar to the instructor or to the course. Here again, the undergirding philosophic postulate would be "freedom within a framework of structure."

Other ideas on plural pursuits have been voiced. Henry Lawson, political science instructor, argues that instructors should insist (and help) students think of plural pursuits projects that have immediate relevancy, a face-value payoff, and that whenever possible their locus should be moved out into the community. Some non-general education instructors, particularly some nursing instructors, have experimented and have found value in plural pursuits for their own specialty courses. This is really not surprising since the basic notion of giving students experience in designing their own education applies to specialty education as much as it applies to general education. Ross MacDonald, language arts instructor, thinks there should be a writing component in virtually every plural pursuit. This is in no way a plea for return to term papers. He reasons 1) writing is a means of clarifying thought, 2) writing disciplines students to organize that which they have learned, 3) the students need the experience in writing and 4) writing leaves a product from which others can profit. Edwin Boles, plural pursuits librarian, asks for the cooperation of instructors in his development of a compendium, or maybe a vertical file, of exemplary plural pursuits for the Learning Resource Center. These could be used as models by new students still unfamiliar with what is meant by plural pursuits and could be used as measures of quality by all students. One final idea voiced by several instructors is that of a plural pursuits publication. This would give additional extrinsic reward to those students whose plural pursuits were judged by a panel of instructors to be of such worth as to deserve publication to the student body and to the wider community.

Further Involvement of the Learning Resource Center

At the beginning of this project some of the instructors were at the "show a movie" level of sophistication in media. They have come a long way since then. The generic courses particularly challenged them to develop highly mediated presentations. Some moved to completely mediated packages which had the negative effect of removing their physical presence and, since they put so many hours into preparation, made them reluctant to change one jot or tittle for the next presentation. This, of course, would be the media equivalent of using lecture notes, yellowed with age and obsolescence. Even so, it was those who were bold and creative enough to try fully mediated packages who convinced others that media could be used with great effectiveness.

The next step in media use calls for a plan whose outlines are just beginning to emerge. The Learning Resource Center has audio and visual equipment whose potential far exceeds that of the learning material now available to be used through these marvelous machines. Canned learning material is available for purchase but most of it is off-target for the goals and objectives of the general education courses; it doesn't hit even in the vicinity of the target in the generic courses. Buying commercial material for any course, particularly fully packaged material, does, to a greater or lesser degree, abrogate the instructors perogative--and duty--to shape the curriculum of that course. On the other hand, to expect the instructor to know proper use of all equipment and to direct the still photographer, the video photographer, the motion picture photographer, the graphic artist, and the sound man is to expect the impossible. Los Medanos College is fortunate in having a Learning Resource Director who has the skill and creativity to be such a producer/director but again it is unrealistic to expect him to do this for all the teaching hours of the hundreds of classes which are offered.

The fact is N.B.C. and C.B.S. and P.B.S. are, in their better moments, superior to Harvard, Yale and Los Medanos College in their capacity to teach people. They have mobility,and access, and currency, and technical teams, and talent and money galore. No college could approach what C.B.S. did when they had Dan Rather head a team to make a documentary on American Assasins. However, television networks do not have a curriculum. They only cover that which is guaranteed to capture the interest of the buying public. They present only shadows on a screen. They are restricted to a one-way flow whereas education is an interchange.

What is needed is a systematic way for colleges to tap the multi-million dollar archives of television. This would call for computer-level complexity in subject indexing for, to use an analogy, instructors only need a quote from a book, not the whole book. Another way to go would be for colleges to develop their own archive. There are legal questions of copyright in this method and it has the further limitations of starting from scratch (no accumulation of material from past years) and of being dependent upon instructors knowing in advance what programs will be worth video-taping for storage in the local archive.

At the moment, Los Medanos College is simply aware that in the immediate future film and tape material will be collected just as books are now collected. Development of a model for how this audio/visual material can best be made available and incorporated into teaching is high on the agenda. Brief experience has taught that pictures and sound make marvelous illustrations of ideas and carry an emotional impact that words alone cannot. Experience also suggests that the instructor's presence is the constant and that the media needs to be woven in and out but always subordinate to the presence of that instructor. To do this properly, instructors need training and continued help in conceptualizing the mediated unit, in storyboarding, in scenario writing and in editing. Some will also need to learn better how to use the media technicians which the Learning Resource Center has available.

There are other tasks associated with the general education program which merit high placement on the agenda of the Learning Resource Center. There seems to be a near universal problem when the media approach is used in making proper prefaces, transitions and recapitulations. Maybe the instructors and their media consultants and technicians get so close to the material as to be blinded to the need for saying "This is what I am going to do." "This is why I am going to do it." "I am now moving from idea A to idea B and this is their connection" and "These are the high points of what I just covered." A second problem that needs thought and development is that of using media as a substitute for reading and a method of teaching reading. Students with serious reading problems need an immediate substitute for the reading they cannot handle. However, a film or tape substitute is no long-term answer to their problem yet film and tape may be the means by which they reinforce and improve reading skills. Two other problems deserve quick mention. Plural pursuits are fast becoming a major activity of the whole student body. This will soon swamp the one person designated as the plural pursuits librarian. Giving assistance to students in their plural pursuits is really just a variation on being a reference librarian. Therefore, all Los Medanos College librarians can and should become plural pursuits librarians. Closely allied to this is the special need for rapid and full development of the vertical files. Both plural pursuits and societal issues call for the accumulation and packaged accessibility of highly current materials. Rapid growth of the vertical files will occur only if all faculty members join the search and become the gleanors of the fugitive material.

Continuing The Evaluation

To date, the evaluation of this general education project has been largely evaluation of planning and process. This evaluation will be continued and will, no doubt, turn more to evaluation of effectiveness. There is some question whether this model of general education can be evaluated by the usual measure of amount of knowledge retained by the students. It is admittedly molar and affective and ethical in goal. Simple measurement of knowledge retained--and this in itself is not simple--is an inadequate assessment of whether such goals were approached. It is also questionable whether this general education model can be evaluated by its long term, objective effect on the lives of students. There is no control group for comparison and there are far too many intervening variables. What seems more promising is a periodic repeat of the instructor evaluation of all facets of the general education program by outside evaluators using depth interview. The depth interview approach by outside evaluators should also be used with students currently in the program and with students who have completed all six of the general education packages and who have the perspective that time affords.

There are some immediate evaluative measures that should be taken. In May 1976 there should be a re-check of the student evaluation of the generic courses first done in May 1975. The same questionnaire could be used to make direct comparison easy. A similar instrument should be devised to get at student reactions to the discipline courses. Some students are already doing their own evaluation of plural pursuits. Actually, two different teams of students are interviewing administrators, faculty and students about plural pursuits as their own plural pursuits projects. Their results will be published in the college paper, The LMC Experience, and will be kept on file in the Learning Resource Center. These student studies will be of value but more is needed. Particularly there is a need for some institutional form of quality control of plural pursuits so that all instructors and all students know that the institution takes plural pursuits seriously. One other immediate check needs to be made and that is a study of the articulation of the generic/discipline packages in general education to the senior colleges. Finally, it is recommended that at the end of five years (three graduating classes) there should be a full dress evaluation of this general education program planned and carried out by an outside evaluation team.

APPENDIX 1

LOS MEDANOS COLLEGE
Language Arts 1TG

COURSE OUTLINE

Course Description

1TG Language and Thought 1 unit

Prerequisite: Concurrent enrollment in Language Arts 5TG or 15TG or 25TG.

1 hour lecture

Concepts and principles concerning thought and the communication process in reading, writing and speech; language as a determinant in perception, thought and behavior; language as a symbol system for both describing and holding on to reality; the effect of cultural diversity on the language arts; language as a factor in ethnic and class relationships, in the erosion of credibility, in alienation and in other societal issues.

OVERVIEW

The course is designed to reflect the multiplicity of language relationships and functions in basic forms of communications. This one semester course meets one hour per week and broadly familiarizes the student with essential principles and concepts that are dealt with in more elaborate detail in an appropriate discipline course (Speech 25TG, Writing 15TG, or Reading 5TG) the student is pursuing.

GOALS

1. To introduce and equip students with a broad knowledge and understanding of the meanings and functions of language in our multicultural society and throughout other parts of the world.
2. To encourage and enlarge an awareness, appreciation and an acceptance of various forms of communication and their impact on our lives and the interpretations we attribute to them.
3. To promote growth in one's own ability to effectively use language to clarify and express "self" uniquely.
4. To illustrate how we use communication to test reality.

OBJECTIVES

1. To establish a clear definition of communication.
2. To review and observe the dynamics of communication.

3. To see and understand man's need for language as a symbolic tool of expression.
4. To distinguish in a general way differences or similarities of language patterns and sounds of various ethnic and ecomomic groups.
5. To compare the simple language structure of a child with the often times complex language patterns of adults.
6. To recognize relationships between perception and language.
7. To observe various changes in language.
8. To recognize and correct common fallacies in reasoning.

CONTENT

1. The Language Arts Generic Program is divided into 15 units or presentations. Each 1 week presentation is designed for 50 minutes of classroom instruction.
2. The 15 topics that will be presented at each class meeting are:

UNIT I:	Pathways to Communication
UNIT II:	Symbol Systems of Communication
UNIT III:	History and Development of the American Language
UNIT IV:	Psychological Development of Language Within the Child
UNIT V:	Perception and Language
UNIT VI:	Relativity of Language and the Process of Change
UNIT VII:	Language and Culture
UNIT VIII:	Logical Organization of Ideas
UNIT IX:	Definition, Classification and Generalization
UNIT X:	Reports, Inference and Value Judgments
UNIT XI:	Listening for Meaning
UNIT XII:	Corruption of the Integrity of Language
UNIT XIII:	Language of Suppression
UNIT XIV:	Barriers to Communication
UNIT XV:	Language as an Art Form

APPENDIX 1

ACTIVITIES

1. Strategies and teaching methods of instructor's lectures, media presentations and student interaction, when appropriate.

2. Each class presentation is designed to expose the students to new areas of learning or reflection of old patterns from a different or new cultural perspective.

3. A transition from each unit in the generic course to the discipline course will be a point of emphasis.

MATERIALS

1. No text.

2. Syllabus prepared by the instructors.

3. Slides, motion pictures, audio and video tapes.

EVALUATION

1. Formative

   Scored exercises pertaining to material covered in each class meeting

2. Summative

   The final exam will be drawn from items in the tests used to evaluate learning in each unit. Students will be advised to remember all corrections since the items will reappear in the final exam.

POLICIES

1. Grading

   Based on a cumulative score received at each class meeting plus score on final exam

2. Attendance is mandatory.

APPENDIX 2

LOS MEDANOS COLLEGE
Language Arts 15TG

COURSE OUTLINE

Course Description

College Composition 3 units

Prerequisite: Prior or concurrent enrollment in Language Arts 1TG

2 hour lecture, 2 hour lecture/practicum

Focus will be on expository writing with reading and speech as ancillary and supportive language skills. Course will reflect writing as an internal process of vivifying one's attitudes, thoughts and ideas through a patterned structure and arrangement of words from mind to paper. Using the stimulation of literary works (reading) audio expression (speech) as well as other multimedia, the course will call for frequent exercises in writing logically developed expository papers that state and support one central idea or several ideas or opinions. The course will allow time for plural pursuits of individual interests in writing with special encouragement toward research and writing in the areas of ethnic and women's concerns and in the great societal issues which the world faces. Satisfactory completion of this course clears the writing proficiency requirement of the A.A. degree.

OVERVIEW

This course is designed to develop the student's capacity to generate insights and to express them in a written form which is effectively organized, forcefully worded and mechanically astute. A serious concern of the course then is to take the student from the basic skills into the more demanding considerations of thinking and writing. By applying the concepts presented, students may eventually learn to deal with more complex problems in language which challenge them to implement the higher competencies of expression while, at the same time, increasing their opportunities to apply the basic tools of composition. A major concern, then, is that the course will provide college students of English a means by which they may become aware of, define, and move toward those qualities of thinking which form the framework of good writing.

GOALS

To enable the student to transform a blank page into a piece of effective communication.

To expose students to a variety of stimulating expository writings on current societal issues from many cultures and countries, thus illustrating good writing techniques and encouraging individual style and response.

To strengthen the student's confidence when faced with a writing task.

To enable the student to develop a world view when thinking, discussing, and writing about current issues.

To present non-jargon, simplified explanations with respect to basic grammar and rhetoric.

To encourage the full range of written reactions to the reading material and to provide an opportunity for the student to apply his language skills in written composition.

To convey the understandings that a writer often determines what he thinks and feels as he is writing; in other words, that writing not only expresses thought, it creates thought.

To give practice in this kind of creativity.

To stress that "correctness" in writing is relative to time and place; that standard written English is one dialect out of many.

OBJECTIVES

The student will be able to demonstrate proficiency in the use of language skills based on the criteria that obtains in the usage of standard English.

The student will be able to recognize and apply the various means of paragraph development (example, narration, definition, and comparison and contrast).

The student will be able to specify some contemporary essayists representing many cultures who speak to his own concerns.

The student will be able to analyze and criticize the form and style of unfamiliar expository writing.

CONTENT

Each unit of the course focuses on a current societal issue. Each unit includes the reading and analysis of written material by authors who communicate from the perspective of a world view. Each unit presents vocabulary building exercises which concentrates on words associated with the unit topic. Material on spelling includes both "demons" taken from the reading material and useful spelling patterns and rules. A key section of each unit deals with basic grammar or expository rhetoric. The course is divided into twelve units centered around the following themes:

Unit 1: The Troubled City
Unit 2: Personal Relationships
Unit 3: The Age of the Machine
Unit 4: Ecology
Unit 5: The Changing Role of Women
Unit 6: The Drug Problem
Unit 7: Political Philosophy
Unit 8: Religion
Unit 9: Crime
Unit 10: Genetics and Science
Unit 11: The Racial Revolution
Unit 12: Science and the Human Condition

ACTIVITIES

Students will be required to write approximately 8,000 words for the course. Formal written essays will be due every other week alternating with more informal writing assignments. Students will contract to do additional readings in one of the unit themes and respond in written form through a journal, a series of short essays, or a research paper, depending on the student's need and the agreement of the instructor. Student papers will be reproduced and discussed by the class. Class work will include structured exercises, lectures, discussions, use of the writing workshop, and teacher-student conferences.

MATERIALS

Textbooks: (1) Steps in Composition, (alternate edition) by L.Q. Troyka and J. Nudelman. (2) Webster's New World Dictionary (paperback edition).

Supplementary handouts on the topic under consideration as well as appropriate audio-visual material will be used. There should be a supplementary reading list representing the unit themes to be covered.

EVALUATION

Since the standard of proficiency in this course is basically concerned with written expression, [illegible] student will be evaluated on the basis of their performance in composition assignments. Standards for evaluating student themes should be developed on the basis of the following considerations:

1. With respect to content, the composition should have a significant central idea clearly defined and supported with concrete, substantial, and consistently relevant detail.

2. Organization of the composition should be planned so that it progresses by clearly ordered stages and develops with originality and consistent attention to proportion and emphasis.

3. Paragraphs should be coherent, unified, and effectively developed. Transitions between paragraphs should be explicit and effective.

4. Sentences should be unified, coherent, forceful, and effectively varied.

5. Diction should be fresh (free of hackneyed expressions), precise, economical, and idiomatic.

6. Clarity and effectiveness of expression should be promoted by consistent use of standard grammar, punctuation, and spelling.

POLICIES:

Since the standard of proficiency in this course is basically concerned with written expression, it is essential that an equitable evaluation system be used which can be distributed to the students for their reference.

Because a high correlation exists between regular student attendance and success in developing language skills, a record of attendance should be kept. Students should be aware that irregular attendance will adversely affect their grades.

Instructors will be engaged in continuous evaluation of the course through observation and consultation on matters of content, materials, presentations, and activities.

APPENDIX 3

LOS MEDANOS COLLEGE
Language Arts 1TG

Score: ______________________

STUDY GUIDE FOR READING ASSIGNMENT

NAME: ______________________

GENERIC CLASS TIME: ______________________

DISCIPLINE INSTRUCTOR: ______________________

DATE: ______________________

TITLE OF UNIT: ______________________

TITLE OF ARTICLE: ______________________

AUTHOR: ______________________

UNIT TITLE: ______________________

I. Vocabulary (with definitions):

1. ______________________
2. ______________________
3. ______________________
4. ______________________
5. ______________________
6. ______________________
7. ______________________
8. ______________________
9. ______________________
10. ______________________

II. Summary of Article (two or three complete sentences) ______________________

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APPENDIX 3

III. Author's Purpose (two or three sentences) ____________________

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IV. Author's Main Points:

1. ____________________
2. ____________________
3. ____________________
5. ____________________
5. ____________________

V. Your Opinion of the Issue(s) Raised:

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APPENDIX 4

A MODEL FORMAT AND DEFINITION OF THE COURSE OUTLINE

By Chester Case

Forward

What is a course outline? A course outline is an evolving plan. Anyone reading a course outline should understand that it is essentially a blueprint, and that the real course will exist in the dynamic interplay of student, instructor, course outline and academic environment. Thus, the course outline cannot be a complete description, nor a final description. As a course evolves, the outline will be revised in the light of evaluation and experience. A course outline specifies the agreed upon objectives and content for a course, but it does not confine different instructors teaching that same course to identical methods of presentation. Indeed, it would be strange if there were not quite different approaches by different instructors in respect to unit and lesson plans.

There are strong and persuasive reasons for undertaking the disciplined exercise of preparing course outlines. First and foremost, the process of developing a course outline leads to improved instruction (and learning) by bringing forth a clear, articulate plan for teaching/learning that is amenable to evaluation. A course outline makes explicit the implicit. Taken as a totality, a collection of course outlines is a very significant declaration by the college; it puts on record what the college promises to deliver by way of teaching/learning. Further, such outlines are the expected outcomes of curriculum development projects, be they large scale ventures such as the General Education Project or smaller scale, individual efforts. Course outlines are required grist for the accreditation team's mill. And, of course, they are the evidence used by senior colleges and universities in determining all questions of articulation.

Criteria of a Satisfactory Course Outline

A satisfactory course outline will give an informed reader a generalized understanding of what the course is all about, what it offers a learner, and how the learner, the instructor and the material will interact. It will reflect institutional commitments and philosophy. It will reveal that the content is calibrated to an appropriate level for the student clientele, that expectations are reasonable, and that the originator of the outline has a clear and defensible persuasion as to what is worth the teaching and worth the learning. It will be student oriented. It will be workable. It will be credible. It will be fair.

Companion Definitions

In order to define "course outline," a useful first step will be to stake out provisional definitions for companion terms. There is a whole family of terms

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that are related to "course outline." The kinship tie is that all, in one way or another, tell about the medium of exchange that passes between learner and teacher in the commerce of education. Some of the most commonly used kindred terms will be defined here to help delineate what "course outline" is not.

1. Course Description-Catalog: This begins with course name, unit value, transferability, prerequisites, and other such essential details. Then, in telegram style, the basic goals and content of the course are described. This description travels far and wide. It is used by students in making decisions on what courses to take. It is used by other colleges and universities to interpret transcripts. It is the basic description used for submitting program approval requests first to the District Board of Governors and then to the Chancellor's Office in Sacramento.

2. Course Description-Student Handout: This description is prepared for a student audience. Typically, it is a kind of "hello, there" message... readable, brief, an invitation to a learning experience with a clear but succinct indication of what will be covered, methods, grading and other policies, basic information like time, place, instructor texts and/or other material, and a calendar of the course.

3. Course Syllabus: Syllabus means, by dictionary definition, "a summary outline of a discourse, treatise, or course of study or of examination requirements." By more common usage, it has come to mean a compendium of materials for a course. A syllabus is mainly the content portion of a course. Some instructors so refine and elaborate a syllabus that they use it as a supplement to, or even in lieu of a text.

4. Lesson Plan: A lesson plan is a detailed guide for a teaching/learning episode. It is a scenario worked out by an instructor, telling how the learner, the instructor, experiences, and materials will interact in order to achieve the objectives designated. Lesson plans are usually made on a class-session basis, though coordinated into a sequence that comprises a unit.

5. Unit: A sequence of teaching/learning episodes designed to bring the learner to the attainment of stated learning objectives. At one time, there was something of a commonly understood definition of unit, which distinguished it from the venerable curricular pattern of proceeding in an undifferentiated flow through an authoritative source (McGuffey's Reader, for instance, or Gray's Anatomy). The unit concept was an innovation in its day. Though meaning has been considerably blurred over the years, these properties seem to still have currency: a unit has a beginning, middle and an end; it combines experiences, materials, methods and evaluation procedures to bring the learner to stated objectives; objectives are clearly stated.

APPENDIX 4

6. Course Corpus: Somewhere in almost every instructor's office is the course corpus, a rich archive of notes, plans, materials, transparencies, tapes, dittoes, clippings, bibliographies, tests, quizzes, handouts... all the detritus of courses gone before. It may be found in folders, binders, or stuffed in a filing drawer.

Course Outline: A General Description

A course outline can be characterized as a three to four-page document general enough to give an informed reader an overall view of what is supposed to happen for the learner, while still particular enough to inform the reader of what will happen, how it will happen, in what sequence and involving what substantive subject matter.

The audience for the course outline is fellow professionals. The course outline can be likened to a road map that schematically shows how the traveller (the learner) goes from point A to point B by the main route, but doesn't enumerate a detailed itinerary specifying every stop, every byway, every optional side trip.

Course Outline: Components

It is assumed here that in basic structure every course in the catalog from A to Z (Appliance Service Technology to Zoology) bears sufficient resemblance to every other course to warrant the specification of a standardized set of components. These components, when put together, comprise a course outline. These are course outline components:

1. Overview: The overview is the first component that greets the reader. This component needs to include, as a kernel of information, the course description-catalog. In addition to this catalog description, the overview is a narrative statement of several paragraphs elaborating what the course is all about. It tells what body of knowledge, period of time, set of skills, family of activities is to be covered. Further, it may offer a rationale for the course, telling why the course is offered, the need to which it is addressed, its place in a program or sequence of courses.

2. Goals: The next component is a statement of course goals. A goal is a general philosophical statement of what a course hopes to accomplish. Goals (which are distinguished from objectives) can be presented in narrative or outline fashion. The statement of goals informs the reader of what the course intends to happen. A paramount goal for each general education course, generic and disciplinary alike, is "to encourage the student to develop a world view." Another example, a goal for Small Engines Technology would be, "to bring the student to entry level job

competence by developing skills, informational background and attitudes essential to vocational success." A goal for Drawing and Composition would be, "to expose the learner to the versatility of line forms as a mode of aesthetic expression."

3. Objectives: Major objectives, or expected learning outcomes, are stated in this component. Objectives are what the learner should be able to do, or know, or feel as a result of experiencing the course. Only major objectives need be stated. Space limitations will certainly preclude the exhaustive listing of learning objectives that are better specified at the level of the unit, the lesson plan, LAP, or audio-tutorial package. An example of a major objective in Business Communication would be, "the student will be able to distinguish between acceptable and unacceptable practices in business letter writing." Another example, for Health Education, would be, "the student will be able to demonstrate mastery of basic nutritional concepts by compiling a week's well-balanced diet." For American History, a major objective might be, "the student will be able to enumerate significant contributions to ethnic minorities and women to the development of the United States." Another, "the student will be able to present in writing a personal interpretation of the origins of representative government in the United States."

   Learner progress in a course can only be charted in the movement toward the attainment of objectives. Hence, objectives must be selected with evaluation processes in mind. Objectives have to be susceptible to objective or subjective evaluation and should reflect in some proporation the cognitive, affective and psychomotor domain.

4. Content: Content can be a body of knowledge (e.g., facts, generalizations, formulas, definitions, theories), attitudes, beliefs, values to be explored, perspectives to be infused, sets of skills to be acquired and practiced, a family of activities to be experienced. For some courses, the emphasis may be on the cognitive, while others favor the affective, and still others, psychomotor skills. All courses should include experiences in all three domains. (Some will attempt to balance all three.)

   The content of the course should be organized to show, in a general but clear way, the allocation of time segments for the units or activities or sub-divisions of the course. This rough calendar should depict the the sequence of the course, and display the logic and/or developmental succession within the course organization. It need not be a detailed specification of due dates, exams and the like. That information is best conveyed in the course description-student handout.

5. Activities: Activities are the experiences and learning tasks coupled with strategies and teaching methods prescribed to carry the learner through the content to the attainment of the objectives of the course. Examples would be lecture, discussion, group work, field trips and observations, experiments, hands-on drills and practice exercises, tutorials, auto-tutorials, independent readings, and workshops. (This is a suggestive, not exhaustive list.)

   The determination of what procedures to prescribe for the attainment by students of the objectives of a course will depend upon several factors, such as the objectives themselves, the content, the skills and interests of the instructor.

6. Materials: What will the student be working with? What will the student be expected to do (required work), what is recommended, what can be listed as a kind of basic set of works that a curious and able student might gather in and absorb in order to become conversant with the important writers and/or producers in a field? In the course outline it is not necessary to explain in detail how, when and where materials will be introduced nor how the student will be expected to use them, but required reading-listening-viewing materials need to be made explicit.

   This materials component would list such materials as these:

   a) textbook(s)

   b) non-text readings, such as articles, documents, clippings, case studies

   c) bibliographies (for students, stating required reading-listening-viewing materials)

   d) bibliographies (for general background in the field)

   e) equipment

   f) supplies

   g) slide collections

   h) films, audio-tapes, video-tapes

   i) syllabi

   j) audio-tutorial packages

7. Evaluation: Evaluation techniques are those processes by which the learner and the teacher are apprised of learner progress toward course objectives. Formative evaluation is in-process evaluation that yields

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feedback to the learner on a short-term, small-increment basis. Summative evaluation yields a judgment to the learner and teacher of overall achievement. There exists an institutional expectancy that all courses reflect some experience for the learner in written expression of evaluation of objectives. (Note: Evaluation and grading are not necessarily the same thing, though in common practice they closely intertwine.)

8. Policies: Major distinctive policies other than college-wide policies or workday regulations and/or agreements are set out in this component. For instance, grading policy (by which the results of evaluation are translated into the grading symbol system) would be described. Rules on attendance and tardiness as well as expectations for student participation would be included. How the instructor plans to evaluate the effectiveness of instruction, suitability of materials, procedures and other aspects of the course would be described in this component.

LOS MEDANOS COLLEGE
Anthropology
Instructor: Gail Boucher

APPENDIX 5

PLURAL PURSUITS PROJECTS

I. What is Plural Pursuits?

"An integral part of a course which allows a student to pursue an area of interest concerned with ethnic studies, women's perspectives, occupational exploration or other areas selected from a variety of learning processes. The focus of this plural pursuit should provide students experience in designing their own educations."

II. How will we go about Plural Pursuits in Anthropology?

A distinctive feature of anthropology is how anthropologists study human beings. Since anthropology is a very broad field of study, your plural pursuit topic can be chosen from almost infinite possibilities. (We will discuss some in class). However, your project should reflect some of the methods used in anthropology. In other words, you will approach your plural pursuits project like an anthropologist would.

In a way, we are all anthropologists. We have learned a certain set of skills which enables us to make sense out of people, places and things which are a part of life. Anthropologists attempt to make sense out of aspects of human life, whether it's prehistoric art or eating habits in a college cafeteria. The process used is one that usually necessitates:

A. Deciding on an interest area and narrowing this area down to a "topic" for study.

B. Determining what you'd like to learn by studying this topic.

C. Obtaining some background information on your topic area.

D. Collecting data. This can be done any number of ways, such as:

   1. participant/observer role.

   2. interviews.

   3. research.

E. Drawing Conclusions.

With this process in mind, your plural pursuit in anthropology will consist of:

1. A choice of an interest area:

   a. Womens.

   b. Ethnic.

   c. Societal.

d. Vocational.

e. Other.

2. Studying this area in some of the ways an anthropologist would do.

III. Details and Specifics

Hopefully, this exercise will make all of your efforts worthwhile. Everything from why and how you selected your topic (the reasoning, brainstorming, and process of elimination involved) through the conclusive steps is part of the process.

Keep in mind that with plural pursuits, there is no "right" answer. Completion of your project according to the agreed upon process is the goal. You may find that certain resources didn't provide the desired information. However, it still counts that you checked those resources. You will have a chance to synthesize the "checking" into part of your project. Your efforts, then, won't be wasted.

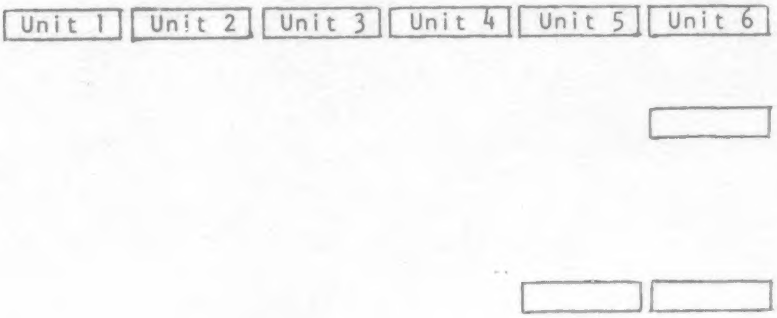
A. Accounting

How much will this plural pursuit project be worth in the course?

The plural pursuit project is an integral part of each general education course. Within the plural pursuit requirement, however, there is room for some flexibility. Some of you may want to spend more time on a plural pursuit than others. Therefore, the following options are available. Everyone must become involved with a plural pursuits project. The choice is offered in terms of what proportion you wish it to count, in relation to the overall course.

B. Explanation

The course is broken down into units or areas of study. Each unit represents a different area of learning and will be worth a certain chunk of the overall course.



OPTION 1 = worth at least one unit in terms of overall course.

OPTION 2 = can be worth up to two units in terms of overall course.

Your choice lies in how much you wish your plural pursuit to count (within certain guidelines). As you can see, option No. 1 (required) shows it worth at least as much as one of the other units of study within the course. Option No. 2 allows the plural pursuit to be worth a maximum of possibly 2 of the other units of study in the course.

C. Option Descriptions

1. Option No. 1 - (Minimum requirement allowed).

a. Plural pursuit project to be worth approximately the weight of one box or unit as shown above.

b. The project will stretch out over the whole semester and consist of the completion of a number of parts -- these parts, much like assignments, will be due at various times.

c. Guidelines

(1) You will choose an interest area and topic of your choice and pursue this by fulfilling a certain set of steps.

(2) These steps or parts will be in conjunction with class material and learning. Time will be devoted in class to prepare you to accomplish the various parts of your project and to share and discuss your project with others.

(3) There will be certain completion dates for these individual parts. These dates must be respected in order to get credit for that particular portion of the project.

d. Your project will consist of these required parts:

Part One - Deciding on an interesting area

(1) Narrow this interest down to a topic.

(2) Figure out some specifics you would like to learn about that topic.

(3) Develop some pertinent questions or strategies.

(4) Develop a brief rationale as to why and how you chose this topic.

Part Two - Gathering background information

(1) Get a feel for your topic by checking out what some sources have to say about it (journals, magazines are very good sources).

(2) Specific details will be given on this assignment.

Part Three - Fieldwork experience of some sort

(1) This is your "data - collecting" part and it can be accomplished in a number of ways: observation, interviewing, survey or a combination.

(2) This may also consist of the participant/observer role where you visit a place and participate as an objective person -- watching behavior, events, etc.

(3) Details and material for this will be provided in a later class.

Part Four - Drawing conclusions.

(1) This portion reflects the final step or final assignment of your project. It will be the culmination of the other steps and reflect what you have learned as a total experience.

(2) The necessary information for this part will be provided later in class.

2. Option No. 2

a. Plural pursuit project to be worth approximately or up to 2 boxes or units as shown previously.

b. As in option No. 1, the project will stretch over the whole semester and will consist of a number of parts.

c. Option No. 2 must include all the parts of option No. 1 (parts one through four), plus any 2 of the following:

(1) Writing up the project into a complete research paper.

(2) Read a book in conjunction with your topic and write a book review. (Format and specifics will be provided by me.)

(3) Design in conjunction with me and/or other students a "learning experience" with possibilities as a learning tool for the classroom or Learning Resources Center.

(4) Create a final product of some sort which you feel expresses some of the learning you've achieved.

(a) Tape.

(b) Slides.

(c) Diagram.

(d) Bibliography.

(e) Art work, etc.

(5) Keep a plural pursuits journal outlining and reflecting about your experiences with the project, fieldwork, interviewing, etc.

Details and guidelines concerning each part of the project will be available from me. The plural pursuit project is a step-by-step process. This design should provide a way for your plural pursuit to be a real part of the course. Feel free to comment.

IV. What Happens Next?

I will act as a resource person and coordinator along the way. This will include giving you the necessary information and guidelines that you will need.

The four parts will be discussed and assigned in class, in a chronological order. Your first assignment will be given today, and explained to you so that you can begin to work on it.

V. Any Questions?

Understandably there may be some questions or confusion about what or how to study something. Some of these will be answered along the way and through class discussions and presentations. I can be available to help with problems, suggestions, questions, etc. Please do not hesitate to consult with me on any ideas you might have.

Call or catch me after class and let me know if you need some help or intend to come by. I am also always available during regular offic hours!

SOME IDEAS FOR PLURAL PURSUIT PROJECTS - (Out of probably thousands possible -- use your imagination!!)

Study women's or men's roles cross-culturally
Marriage Forms: here and Abroad
Body language, customs, and traditions cross-culturally
Primates: are humans really similar?
Evolution: is it valid?
Ecology and the modern world
Religion and rituals: here and abroad
Cross-cultural family life and child-rearing
U.S. family life
Food: customs, traditions, variations, eating habits
Death: different beliefs cross-cultural
Psychic phenemona and the occult
Advertising: its impact on lifestyle
Changing values
Drug culture: here and abroad
Native Americans
Black identity
La Raza identity
Homosexuality: attitudes and practices here and/or in other cultures
Technology and its effect on our culture, values, expectations
Prisons: our system/other culture's means of social control

Analysis or comparison of certain aspects in our society and/or compared to other societies:

Suicide
Old Age
Drugs
Pregnancy and/or life cycle
Material wealth
War
Clothes
Decoration
Homes/shelters

Play/fun
Philosophies
Communes
Superstitions
Health
World-views
Concepts of time
Music
Language
Murder

School/Education
Status
Myths/Folklore
Art
Social movements
Politics
Sports
Recreation
Concepts of beauty
Concepts of good/bad etc.

APPENDIX 6

LOS MEDANOS COLLEGE
Physical Science 10TG
Instructor: Stan Chin

PLURAL PURSUIT PROJECTS

Introduction

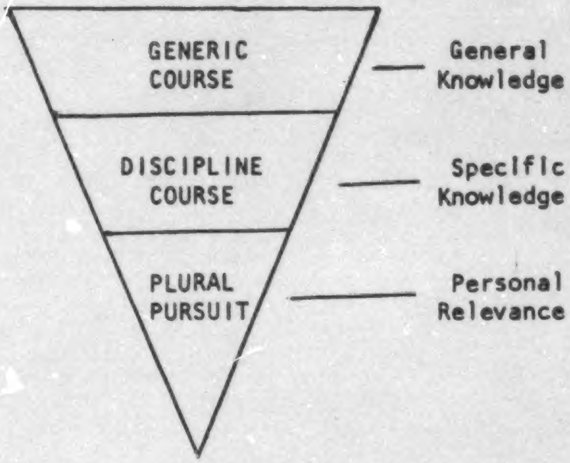
Knowledge is always more meaningful if it is relevant. A goal at Los Medanos College is to insure that its educational programs are relevant for students. To accomplish this goal the "relationship and integration" of knowledge will be developed and emphasized.

As depicted by the drawing to the right, the student is first introduced to concepts and principles which are common to the related physical sciences by means of the generic course, Physical Science 1TG: "Explorations of the Physical World."

Next, these same general concepts and principles are further elaborated as to their specific applications and relationships to this discipline course in the area of Chemistry.

Finally, the student is asked to complete this process of knowledge integration by exploring some area of personal interest and concern in which chemical concepts and principles can be identified as playing a significant role. This phase of the educational process is called "plural pursuits."

GENERAL EDUCATION AT LMC



Student Education Goals

An integral part of this course is to allow the student to "pursue" an area of interest concerned with ethnic studies, women's perspective, occupational or career exploration, or just about any other area of personal interest to the individual. In this manner relevance of knowledge obtained in the classroom can be achieved. An additional focus of this plural pursuit project is to provide the student an opportunity to design his or her own education and to gain experience with the implementation of this design.

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To satisfy the requirements for this part of the course the student should identify an area of interest through the development of a contract to accomplish the following:

1. Select an area of interest
2. Identify specific learning objectives
3. Design the learning experiences by which the objectives will be met
4. Assess the completion of the learning objectives
5. Choose a method or format for presentation of the project

The instructor will give general assistance and guidance and act as a resource person to the student. To facilitate this role of the instructor, please fill out the section below and return to the instructor next week.

NAME: ______________________ PHYSICAL SCIENCE 10TG: Plural Pursuits

SECTION: ____________________

As an assistance to both you and the instructor it would be helpful for you to fill out this form. With this information both you and the instructor can better arrive at the specifics of the plural pursuit project. What you need to do now is to identify some area of personal interest which you wish to relate to chemistry.

1. Topic or area of personal interest:

2. Possible title for the project:

3. List some of the specific points you wish to make:

4. The chemical concept or principles your project pertains to:

NOTE: You are not bound to this initial exposition regarding your plural pursuit project. If you should change your mind regarding any aspects of this initial proposal you have the option to make this change.

APPENDIX 7

LOS MEDANOS COLLEGE
Humanistic Studies 20TG
Instructor: Connie Missimer

PLURAL PURSUITS PROJECT

Counts for 25 percent of total grade

Involves 20 or more hours of time. Keep a log of your activities, impressions and before each entry note the date and amount of time you spend on each activity.

Go and do some looking or listening (or ?), experiencing visual art, architecture, music, dance, drama (or ?), that is out of the mainstream of your normal activities.

> EVIDENCE: Take slides or tapes of these experiences.
>
> Then think about the nature of these observations, experiences, and ask yourself the question "Is this art? By what standards could I say that what I have experienced is/is not good (great??) art?" Then in your logbook, put down reasons why/why not.

I am happy to be a facilitator of your idea for a project, but you must think up your own project (that's the whole point).

APPENDIX 8

LOS MEDANOS COLLEGE
General Education Discipline Course

PLURAL PURSUITS - LEARNING CONTRACT

I. Statement of Plural Pursuits Objectives

Each course experience should offer a means whereby a student may pursue a special interest within a course as related to ethnic, women's perspective, vocational-technical perspective, or societal issue. The experience should interrelate the course objectives to an individual interest through the use of a learning contract.

II. General Topic Area of Plural Pursuits: ____________________

____

____

III. Objectives (to be completed by student and instructor):

1. ____________________
2. ____________________
3. ____________________
4. ____________________
5. ____________________

(others - use reverse side)

IV. Activities (suggested experiences to achieve the above objectives):

1. ____________________
2. ____________________
3. ____________________
4. ____________________
5. ____________________

(others - use reverse side)

V. Sources and Materials (discuss with instructor and Plural Pursuits Librarian):

1. ____________________
2. ____________________
3. ____________________
4. ____________________

VI. Method of Evaluation (agreement between student and instructor):

____

____

CLASS: ____________________

DATE ORIGINATED: __________ (Student's Signature) (Instructor's Signature)

DATE COMPLETED: __________ (Student's Signature) (Instructor's Signature)

GRADE ASSIGNED: __________

DISTRIBUTION:	White:	Student
	Yellow:	Instructor
	Pink:	Learning Resource Center

APPENDIX 9

EXAMPLES OF PLURAL PURSUITS
DRAWN FROM THE TWENTY-THREE DISCIPLINE COURSES
WITHIN THE GENERAL EDUCATION PROGRAM

BEHAVIORAL SCIENCES

1. Anthropology: Gail Boucher

Anthropology seems to really invite "on location" interests in plural pursuits. Last spring several students became interested in primates, particularly chimpanzees and decided to try their hands at observing in the field. Several visits to local zoos as well as reading res earch and some films by Jane Goodall really whetted their enthusiasm. Their project took a final form of slides taken of various chimp behaviors (which they found quite parallel to human behavior). Their presentation was a visual show capturing key chimp behaviors and slides illustrating the same behaviors in humans.

The finished project included a 10-minute slide presentation along with a clever musical accompaniment (selections from some of the ape-man, gorilla spoofs). The project reflected a great deal of observation, recognition, analysis of chimpanzee behaviors, gestures, etc., and further (to the students' amazement) the parallels of these behaviors with human behavior. Very interesting and fun.

2. Psychology: Estelle Davi

The first plural pursuit paper written by a Chicana woman used the concept of "Who Am I?" She wrote separate chapters on the concepts "How Do I Feel About Being a Mother?" "How Do I Feel About Being a Mexican-American?" "How Do I Feel About Being a Student?" "How Do I Feel About Being a Wife?" She taped interviews she had with her family members--she wanted to see how her sisters perceived her father as a person.

This student's primary goal was to make a report that she could save for her daughter. She did an outstanding job.

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3. Sociology: Alexander Sample

Two students who are currently employed as police officers in Concord and Antioch decided to determine whether or not racism occurred in Contra Costa County law enforcement agencies.

Their research involved participant observation and interviews with other officers, victims, and suspects. The students concluded that racism does exist to an alarming degree. They proposed that Contra Costa County law enforcement agencies re-examine their hiring practices so that they can better identify and eliminate individuals with racist orientations.

4. Anatomy and Physiology: Eric Yeoman

In Anatomy and Physiology, plural pursuits seem to involve the students in the socio-medical aspects of the course. As an example, a student selected a terminal cancer patient and visited the person weekly until his death. The man had a family that though concerned still found it difficult to relate to him. The student shared small talk (both were avid fisherpersons), discussed the progress of the disease and in general provided support and an emotional outlet for the patient. In return, the student became more aware of how to handle death and dying in her profession as a Licensed Vocational Nurse.

5. Biology: Paul Hansen

A 15-minute super 8mm film was made by a Biological Science 10TG student who was doing volunteer work in a special education class for mentally retarded children. With parental consent, she filmed her work with a particular mongoloid child trying to show the behavioral differences from normal behavior.

6. Ecology: Chris Meek

One ecology student investigated alternative life styles as they relate to a person's mental and physical well-being. The student interviewed individuals who were experimenting with solar and wind energy as well as urban food raising (vegetables, rabbits, chickens). Project presentation was an oral report with slides, taped interviews, and music.

APPENDIX 9

7. Human Biology and Health: Chris Meek

Several students participated in a community health project involving lead contamination. Lead was used as a paint additive until several years ago. Thus, houses painted ten or twenty years ago could have a potential health hazard to children who might eat the paint chips. The project consisted of measuring the concentration of lead in the blood of young children in the Pittsburg area. If the concentrations were high, the child's house was checked for lead-contaminated paint. The students assisted the public health personnel and were actively involved in all aspects of the project. The results of the survey were presented orally and in a written report.

8. Art: Larry Howard

Based on the recent controversy over "Mother Peace," a work of public sculpture which caused a controversy in Oakland, a student: 1) wrote a short paper defining the philosophical differences between art works designed for public consumption and art works designed for private tastes, 2) then set up meetings with George Neubert, curator of Oakland Museum, for an interview which was taped with his comments on the work and the controversy, 3) took a series of 35mm color slides of the work, 4) did a series of "person on the street" interviews of people passing by the food of the piece to get public reaction, and 5) while keeping a folder of all of the media coverage on the piece until it was finally removed.

This student compiled this material into a 45-minute classroom presentation and discussion session. The material was then made into a "learning packet" to be used by students in the Learning Resource Center.

9. Dramatic Art: Marlan Shanks

A student made a chemical analysis of make-up thus combining the disciplines of chemistry and dramatic art. The results were very practical. Several of the chemicals found in the make-up have been identified in national studies as being harmful. Since this plural pursuit was reported the potentially harmful products have been removed from the shelves.

10. General Humanities: Connie Missimer

Introduction to the Arts. I had loosely defined plural pursuits for this course as follows: "Go and so some looking, literally out of your life style (20 hours worth) and ask whether what you experienced was art and why/why not." One student went out in search of things which he could consider "ugly," and got himself into several very interesting problems; e.g., is the strictly utilitarian ugly? is moral ugliness also aesthetic ugliness? These are questions which any student can only struggle with, not solve. However, the result of this plural pursuit was a paper in which the student presented all aspects of his findings and thinking.

11. Literature: Sandy Booher

In my "Nature of Literature" class, a group of five students met each week to prepare a project on Sozhenitsyn's novel, One Day in the Life of Ivan Denisovich. After reading the novel and discussing its characters and themes, the group decided to teach a class on Sozhenitsyn for one period. Each student chose a certain area of interest to develop, such as the state of censorship in the Soviet Union, the growth of Sozhenitsyn's career, the historical content of One Day, the nature of Sozhenitsyn's style as shown in the novel, and the personal and political implications of his theme.

They presented this material to the class very effectively in a fast-paced slide presentation which combined scenes from Russia, stills from the film of One Day and pictures of Sozhenitsyn. As these were shown the group members took turns narrating the material they had researched. This was a successful small discussion group whose autonomous cooperative efforts led to a learning experience for the entire class.

12. Philosophy: Connie Missimer

In the interests of learning to be objective and to deepen thought, all students are required to write an argumentative dialogue from eight to ten pages in length. In order to be effective, the subject must be narrow in scope, and the characters in the dialogue must respond directly to one another. One of the best dialogues I've received so far has been one in which the student took a statement from Bertrand Russell's book, The Conquest of Happiness, had A propound it and B disagree. The statement: "To be without some of the things you want is an indispensable part of happiness." B's position was that happiness consists in having everything one wants. The dialogue began as follows:

A. To be without some of the things you want, is an indispensable part of happiness.

B. Nonsense. Happiness is having everything you want.

A. That has to be a false statement. No one ever has everything they want, and yet some people are happy.

B. Well, that's your opinion, but it is still no proof of your statement that "To be without some of the things you want is an indispensable part of happiness" is true. Give me some examples.

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13. Music: Stanley Smith

Interdisciplinary work like plant growth and music or music as a therapy or music's effect on factory production or music's effect on egg production or milk producing in barns is popular for plural pursuits. Other projects tend to be multi-media such as film or slides or other visual image work with music. These tend to be artistically expressive. Others are music producing such as performing, composing (there have been some fine electronic compositions), compiling canned music. Others have been historical, biographical, vocational, ethnic, on women and music, music and its use in worship, changes in contemporary church music, how music affects the mind, and the voice and how it works. This is only a smattering of ideas in progress or that have been completed as plural pursuits in Music Literature 10TG.

14. Composition: Jay Cameron

A plural pursuit that I particularly enjoyed was done by a fellow who wanted to explore the behind-the-scenes of becoming and working as a commercial artist. As a result of his pursuit of information about a career in commerical art, he realized that this field was not at all a career that he could be happy with. He changed his idea for a major. I considered this a definite enlightenment, for in all likelihood, this student's class project saved him years of regrets. The glamor of the commerical artist that he had seen in the finished productions on bill boards , magazines, etc., did not equate with the misery of routine he found the field to be in reality. Since this was a composition course, the student wrote a paper describing how he searched out answers to his question and what these answers were.

15. Reading: Ross MacDonald

A group of three male students packaged an instructional film on water skiing. The project gave them an excuse to indulge in their favorite past-time, obviously, but it also taught them the difficulties of: 1) breaking down a complex series of physical abilities into its component parts, 2) adequately and coherently describing these actions, and 3) piecing the actions into the gestalt of water skiing. It should be noted that this is the skeleton of the process of essay writing, critical reading, and, indeed, the basis of all of our thought processes.

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16. Speech: Olga Arenivar

Objective: Explore the self concept.
Enhance self concept.
Expand others' awareness of the black woman

Five black women explored their personal self image, compared their individual experiences, found the commonalities and the variances, then designed and passed out a questionnaire to other black women to see how they saw themselves. They distributed another questionnaire to non-black women to see how "others" saw the black women. Their findings motivated them to put together a media package (slide, music, poetry , other readings) showing the black woman in her many different roles. The objective was to break down some of the stereotyping and to make the listeners aware of the beauty of the black woman and the significant part black women play and have played in our society.

17. Astronomy: Kate Brooks

One student learned that moon rock samples were available for schools to display, and decided to make that her project--obtaining a moon rock for display at Los Medanos College. She handled all the arrangements with N.A.S.A. for obtaining the rock, directed all publicity, displayed the rock in the foyer of the Administration Wing and gave talks to children's groups who came from elementary and junior high schools to see it.

18. Chemistry: Stanley Chin

This student, aspiring to be a nurse, was concerned about the flammability of her infant's clothing. She decided to investigate what the chemical industries were doing about this aspect of consumer safety. In particular, she choose the Dow Chemical Corporation. She visited their research labs at Walnut Creek and spoke to several individuals there, including a chemist. From these discussions and the literature she received she learned about the chemicals and the processes which Dow is employing to solve this industry-wide problem. An outgrowth of this project led her to discover some simple home-remedies which a housewife can prepare to treat cotton fabrics in regard to their flammability. This she demonstrated to the class in her presentation of the project.

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19. Physical Science: Ed Rocks

Hyperkinetic Children: The student, a mother of a hyperkinetic child, did a great deal of research on the topic, consulted a number of doctors, and found a group of parents of hyperactive children. As a result of her research into dietary causes of hyperactivity, she now regulates her child's intake of foods containing additives. The child is no longer on ritalin and seems to be doing better as a result of the new diet and his parents new responses to his patterns.

20. Economics: Bob Marshall

A student compared the cost of growing vegetables in water versus soil. The student worked for a small company that produced the equipment used for hydroponic farming and therefore he had the experience, equipment, and source of information necessary to carry out such a project. The project included:

...construction of the required tank
...growing tomatoes and cucumbers hydroponically
...completing graphs and analysis comparing the costs of various vegetables produced in water versus soil
...completing graphs and analysis showing the wholesale prices of various vegetables throughout the year (critical because of the extended growing season of the hydroponic method)

The plural pursuit presentation included:

...photos of the tank
...hydroponically grown tomatoes and cucumbers
...a report which included graphs
...a discussion of the above

The student enjoyed doing it because he enjoyed plants, fresh, healthy foods, and his job. He learned something about graphs, fixed versus variable costs and seasonality.

21. Geography: Jane Hunnicutt

Instead of describing one plural pursuit in geography, the titles of several are offered to give the flavor and diversity of them:

"The Women Behind Geographical Exploration"

"Relation Between Ethnic Migrations and Geography"

"Indian Women Guides"

"Segregation and Separatism in the United States"

"Ethnic Groups in Spain, Emphasizing the Basques of the Pyrenees"

"California Indian Women - Acorns and Basketry"

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22. History: Jim Preston

One plural pursuit project involved two students working jointly in the area of traditional African art. They attempted to investigate the place of African art within African society in a philosophical sense and a practical level to actually create pieces of traditional African art based on the acquired knowledge of the uses to which African art was put in a traditional setting.

These students were at the same time taking a course in art and thus utilized two disciplines in this particular plural pursuit. They were successful, I feel, in defining what traditional African art was and very successful in creating several fine pieces of African art. They felt a real personal satisfaction from completing this plural pursuit. By any measure it was a fine educational experience.

23. Political Science: Henry Lawson

The student, a black female, wanted to explore the relationship between religion and politics among Blacks in the city of Pittsburg, specifically the non-participation by those Blacks because of religious beliefs among Jehovah's Witnesses and the Nation of Islam (Black Muslims). The student herself was a member of a local Jehovah's Witness group and as such was often questioning other Blacks about their participation in "politics."

She began by identifying a number of Black churches in the Pittsburg area. She then developed a series of questions for an oral interview with the ministers of the churches as well as members of the respective churches. She then attempted to hold a conference among the ministers for a discussion but was never able to get it together. Her next step was to interview local Black leaders involved in local politics to their reaction to the non-participation. Unfortunately, and unrelated to this project, it was at this point that the student dropped out of school.

APPENDIX 10

PARTICIPANT EVALUATION OF THE LOS MEDANOS GENERAL EDUCATION PLANNING PROJECT

December 1974

PART I: INTRODUCTION AND INSTRUCTIONS

This questionnaire solicits the responses of participants in the General Education Planning Project. The phase of the Project to be evaluated is the planning year, 1973-4, during which time general education faculty and administrators met to develop curriculum, methods and materials. The planning year should be distinguished from the implementation phase, 1974-5, which is now under way. In the spring of 1975, evaluation will be made of the implementation phase as well as beginning measurement of the impact of the General Education Program on students.

This evaluation instrument follows the plan of evaluation developed last year by consultant Professor Leland L. Medsker, outside project evaluator. Also serving as outside evaluator will be Mr. Karl Drexel, who will be involved in gathering data and preparing evaluation reports required by HEW under the conditions of the General Education Planning Grant.

Goals for the project are set forth in the evaluation plan. Questions have been designed to tap participant judgment of the attainment of these goals, which, as listed in the plan are:

Goals and Objectives for Process of Planning

1. Demonstrate feasibility of planning.
2. Provide systematic calendar of planning events.
3. Provide team experience in planning.
4. Develop course outlines.
5. Provide in-service training for infusion of cultural diversity and for theory and practices of planning, evaluation.
6. Inform faculty about sources of media and their application.
7. Provide opportunity to practice skills in simulated teaching/learning situations.

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Goals of Planning Process in Terms of Faculty Development

1. Skill in the development of course outlines and unit plans.
2. Increased communication among faculty members regarding their curricular planning and teaching.
3. Willingness to subordinate themselves in team planning.
4. An increased respect for cultural diversity among students and an infusion of this cultural diversity into the curriculum.
5. Development of a commitment to the interdisciplinary approach.
6. Skill in planning for large group instruction.
7. Imaginative pre-planning for the plural pursuits by individual students.
8. Subscription by the non-general education instructors to the G.E. core and the integration of their courses with it.

In this evaluation instrument, the forced choice format has been used where it has been important to focus responses, but spaces have been included for comment and open-ended responses. Should you wish to write more than any space allows, use the reverse side of the page. For items which you have no basis for judgment, leave blank.

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PART II: FOCUS ON THE PROCESS OF PLANNING

There were a number of facets to the planning process during the year 1973-1974. What is your judgment of the helpfulness of each facet? Think of each facet in terms of its contribution to the accomplishment by the planning process of the goals of the project.

	Not Helpful	Helpful	Very Helpful
GENERAL 1. Helpfulness of Program Facets 1.1 Weekly planning meetings by area			
Comments:			
1.2 Meetings of the whole for "business", e.g., clarifications, directions, planning			
Comments:			
1.3 Meetings of the whole for discussion and exchange of ideas, presentations and progress reports			
Comments:			
1.4 Meetings of the whole for presentations by guest speakers, resource persons (see below for rating of individuals)			
Comments:			

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	Not Helpful	Helpful	Very Helpful
1.5 1973-4 Midyear Meeting: Boulder Creek Retreat			
1.5.1. Presentations by areas			
1.5.2. Discussions by group as a whole			
1.5.3. Discussions by areas			
1.5.4. Informal discussions			
1.5.5. Informal socializing			
Comments:			
1.6 Inputs by individuals (as consultants, presentors, in conversation, in demonstrations, and the like)			
1.6.1. Faculty Colleagues (Specify individuals if you wish)			
Comments:			
1.6.2. Jack Carhart (President)			
1.6.3. Chester Case (Professional Development Facilitator)			
1.6.4. Charles Collins (Dean, Humanistic Studies)			
1.6.5. Vince Custodio (Dean, Behavioral Sciences)			
1.6.6. Don Donatelli (Director, Learning Resources)			
1.6.7. Ricardo Ontiveros (Dean, Social Sciences)			
1.6.8. Joy Swan (Dean, Scientific Studies)			
1.6.9. Other			
Comments:			

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2. Proportion of meetings of the whole to area meetings:

   The proportion was:

   a. overbalanced toward meeting of the whole
   b. about right
   c. overbalanced toward meetings of the areas

   Comments:

3. Which aspect, or aspects, of the planning process do you feel were indispensible during the planning year?

   3.1 Which aspect, or aspects, were most significant to you personally?

4. If you had it to do over again, what would you recommend for improving upon the 1973-4 planning process? What was missing from the 1973-4 planning process that you would like to have seen included?

5. What is your judgment of the value to you of the following guest speakers?	Not Helpful	Helpful	Very Helpful
Hal Brown, Ethnic Perspectives			
Jack Forbes, Ethnic Perspectives			
James Deslonde, Multicultural Education			
Ray Schultz, International Education			
Nevitt Sanford, General Education			

6. Thinking in terms of the planning process, what in your opinion are the most desirable attributes in a guest speaker/resource person?

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PART III: FOCUS ON THE INFLUENCE OF THE PLANNING YEAR 1973-1974 ON THE DEVELOPMENT OF PARTICIPATING FACULTY MEMBERS

The evaluation plan anticipated indications of growth by individual faculty members toward the goals for individuals set out for the planning process. Specifically, the evaluation plan asks for, "A post self-evaluation by each faculty member in terms of what influence the planning year had on her or his feelings of readiness to begin the general education program." To what degree did the planning year influence your feelings of readiness?

6.1 As a result of the planning year, I felt unready, ready, or very ready in respect to my:	Unready	Ready	Very Ready
6.1.1. skill in developing course outlines			
6.1.2. skill in developing unit plans			
6.1.3. willingness to participate in team planning			
6.1.4. development of a commitment to interdisciplinary approach			
6.1.5. skill in preparing for large group instruction			
6.1.6. respect for cultural diversity among students			
6.1.7. awareness of ways to infuse cultural diversity into the curriculum			
6.1.8. capacity to pre-plan imaginatively for plural pursuits by individual students			
6.1.9. capacity to integrate societal issues into instruction			
6.1.10. other			

Comments:

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PART IV: FOCUS ON OVERALL ACCOMPLISHMENT OF THE PLANNING PROCESS

The aspiration for the planning process was large and diverse. Hoped for were accomplishments in:

Curriculum; identification of key concepts and generalization, societal issues and implications, production of course outlines for generic and disciplinary courses, materials, interdisciplinary approaches

Instructional Strategies; large group instruction, plural pursuits, coordination of generic and disciplinary courses media

Evaluation Procedures

Interpersonal Skills; team planning, sharing resources, giving and receiving feedback

Personal Awarenesses; cultural diversity and world view, perspectives of minorities and women, needs of students

What do you believe, in terms of the above aspirations, have been the achievements of the planning process for:

7. The institution (LMC)

8. For faculty and administrators

9. For you personally

10. What do you judge NOT to have been accomplished? How might the planning process have been improved to bring about these accomplishments?

11. Open-end. Is there anything you would like to say that has not been touched upon by the foregoing questions?

APPENDIX 11

INTERVIEW OF GENERAL EDUCATION FACULTY AND NON-GENERAL EDUCATION FACULTY

Part 1 - INTERVIEW OF GENERAL EDUCATION FACULTY

Interviewer's Introduction

1. Realize interviewee completed quite a long questionnaire in December 1974 in which he or she was asked to evaluate the general education planning project and its impact on individual faculty members, as well as the program in general. The responses were very helpful in the total evaluation of the planning process.

2. As part of the evaluation plan we would like now to give each person the opportunity to talk about the program on a personal basis. Our conversation may duplicate some of the items in the earlier questionnaire but that is all right because 1) some time has elapsed since the questionnaire was completed, hence some opinions may have changed and 2) it is often easier to talk about something than to write about it.

3. Want to assure you that our role is to assess the planning process and its impact and not to evaluate faculty per se.

Questions

1. Now that the first year of the G.E. program and the planning for it is nearing the end, how do you assess the overall planning efforts (weekly seminars, retreats, conferences, etc.) in terms of its effect on you both personally and professionally? Be as specific as possible.

2. To what extent and in what ways has the planning facilitated team efforts in both the disciplinary and interdisciplinary phases of the General Education program?
    a. To what extent has it contributed to your knowledge of other fields and your appreciation of what your colleagues do? Give examples.
    b. Without necessarily mentioning names, how knowledgeable of your field are your colleagues in other fields, particularly those with whom you work closely in the program? Is the team effort really working?

3. What do you consider to be the advantages and disadvantages of team efforts as called for in the LMC program?

4. Could the General Education program at LMC "make it" without the nature and extent of planning that is being done? Elaborate.

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Part 1 - INTERVIEW OF GENERAL EDUCATION FACULTY

5. What phases of the planning process have been most helpful to you and in your opinion most vital to the General Education program? Comment on both last year and this year. Detail specific events or activities. Least helpful?

6. How do you regard the nature and extent of interface between General Education faculty and non-General Education faculty? What effect has the relationship had on the General Education program? On that part of the LMC curriculum that would not normally be considered general education?

7. What do you believe should be the role of the Professional Development Facilitator in facilitating the General Education planning process? What constraints, if any, exist which make such a role difficult?

8. Now that you are in the second semester of experience with the General Education concept, how effective do you believe the plural pursuits aspect has been for the education of students?

9. How do you feel the students view the General Education program at LMC? What phases of it are they particularly enthusiastic about? What don't they like about it?

10. How do you regard the impact of the General Education program on LMC as an institution? Does it make the college unique among Community Colleges? Does it give the college a "spirit" that might not otherwise obtain?

11. What has been the impact of the General Education program, and the planning for it on your own feeling about being on the faculty at LMC? Do you think that, as a result of the planning and participation, you identify with college more than you would have had you merely been engaged to teach and been placed on your own?

Part 2 - INTERVIEW OF NON-GENERAL EDUCATION FACULTY

As you probably know, part of the evaluation process of the General Education program at LMC entails the eliciting of ideas and reactions from those of you who are not teaching either the general education generic or discipline courses.

You are one of a dozen or so non-general education faculty that have been selected on a random basis for this interview. Aren't you lucky!

Some Questions

1. How familiar are you with the General Education program?

2. What do you think are its good points? Its questionable points?

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Part 2 - INTERVIEW OF NON-GENERAL EDUCATION FACULTY

3. Have the retreats and the "all" faculty meetings helped you to understand the purposes and thrust of the General Education program?

4. Other than retreats and the "all" faculty meetings what association do you have with the general education faculty?

5. If you had your "druthers" would you structure an association with general education faculty in a rather formal sense? If so - how? If no - why not?

6. Since you are but one of a dozen or so chosen for this interview can you give us some idea of how your non general education colleagues would react to some of the questions asked?

7. In your teaching assignment do you generally get closer to your students than do many other faculty? Because of this you probably can tell us how your students are reacting to the General Education program - the generic courses - the discipline courses, and the plural pursuits. What do they say? Do you believe that, generally, the students reactions are valid? Why? Why not?

8. As a result of whatever interaction that there has been between you and the general education faculty has there been any positive effects on what you teach and how? If so, detail.

9. In many institutions, for a variety of reasons, "never shall the twain meet" between those faculty who are teaching in the so-called occupational type programs and the faculty teaching in the so-called transfers program. Do you believe that the interaction between the non general education faculty and the general education faculty has precluded any schism between you and they? If so, why? If not, why?

10. How do you regard the impact of the General Education program on LMC as an institution? Does it make the college unique among community colleges? Does it give the college a "spirit" that might not otherwise obtain?

APPENDIX 12

GENERIC COURSE EVALUATION SHEET

To the student:

Your responses on this sheet will be very helpful in evaluating the generic course you have just completed. This is an anonymous questionnaire. Please use the space provided on the reverse side of the sheet for any additional comments you may wish to make.

Check the box that corresponds to the course you are taking:

SOCIAL SCIENCE ITG ☐ LANGUAGE ARTS ITG ☐ BIOLOGICAL SCIENCE ITG ☐

BEHAVIORAL SCIENCE ITG ☐ HUMANISTIC STUDIES ITG ☐ PHYSICAL SCIENCE ITG ☐

1. My general feeling about this course is:

__ very positive
__ positive
__ no feelings one way or the other
__ negative
__ very negative

2. The goals of the course (what was expected of me as to what I was supposed to do and supposed to learn) were:

__ very clear to me
__ clear to me
__ neither clear nor unclear to me
__ unclear to me
__ very unclear to me

3. In regard to the syllabus, the handouts and other readings for this course, I can honestly say:

__ I always read that which was assigned
__ I usually read that which was assigned
__ I sometimes read that which was assigned
__ I rarely read that which was assigned
__ I never read that which was assigned

4. When I left each presentation, the concepts, generalizations, principles, and attitudes the instructor was trying to get across were:

__ almost always clear to me
__ usually clear to me
__ sometimes clear
__ rarely clear to me
__ never clear to me

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5. The statement that most closely fits my feelings is:

__ I enjoyed the presentations and learned a lot
__ I enjoyed the presentations but didn't always learn much
__ I usually learned something, but I didn't especially enjoy the presentations
__ I didn't learn much and I didn't enjoy the presentations very much

6. To me, the connection between the generic course and the discipline course was:

__ very clear and consistent
__ mostly clear and consistent
__ no opinion one way or the other
__ mostly unclear and inconsistent
__ very unclear and inconsistent

7. What for you were some of the high points of the course?

8. What for you were some of the low points of the course?

Additional Comments:

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